# Okkulte Chemie - Elemente und Isotope der Wissenschaft

Quellen: https://de.wikipedia.org/wiki/Liste_der_Isotope/bis_Ordnungszahl_10
https://trita.net/archive/occult_chemistry/occult_chemistry.html

Gibt es eine Verbindung zwischen den in der Okkulten Chemie erforschten Strukturen und den Elementen aus der Sicht der Wissenschaft?
Für ein untersuchtes Okkultes Element sollte dann bei einem Vergleich der elementaren Bestandteile immer ein bestimmtes Isotop von den heute physikalisch erforschten Elementen existieren?
In dieser Übersicht wurde eine Zuordnung versucht.
Dabei wurden die heute bekannten Nukleonenzahlen mit dem Faktor 18 multipliziert, um eine Entsprechung für die Anzahl der Anu (Ur-Atome) zu erhalten und diese wurden dann mit den gezählten Werten aus der Okkulten Chemie verglichen.
Der Faktor 18 ergibt sich, da ein okkultes Atom (oder Mikro-Psi-Atom, MPA) jeweils aus 2 physikalischen Atomkernen hervorgehen soll, und jedes eingehende Nukleon (Proton oder Neutron) einen Beitrag von 9 Anu ausmachen soll.

| Nukleon | Proton | Neutron |
|---|---|---|
| Enthaltene Quarks (Up, Down) | u-u-d | u-d-d |
| Teil-Ladungen (Elementarladungen) | +2/3 e +2/3 e −1/3 e = +1 e | +2/3 e −1/3 e −1/3 e = 0 e |
| Enthaltene Sub-Quarks (hypothetisch) | XXY-XYX-XYY = 5X + 4Y | XXY-YXY-XYY = 4X + 5Y |

| | | |
|---|---|---|
| X-Sub-Quark (hypothetisch): | X: +5/9 e | wahrscheinlich das positive Anu |
| Y-Sub-Quark (hypothetisch): | Y: −4/9 e | wahrscheinlich das negative Anu |

| | |
|---|---|
| Up-Quark: | u (z. B. XXY): +5/9 e +5/9 e −4/9 e = +6/9 e = +2/3 e |
| Down-Quark: | d (z. B. XYY): +5/9 e −4/9 e −4/9 e = −3/9 e = −1/3 e |

Wenn an der Bildung eines okkulten Atomes (MPA) immer 2 physikalische Atomkerne beteiligt sind, stammen diese häufig beide von einem Isotop eines Elementes, manchmal aber auch von 2 verschiedenen Isotopen eines Elementes.
Es sind auch Hybride MPAs denkbar, die aus 2 Isotopen von verschiedenen Elementen hervorgehen. Die „Welt“ der MPAs ist komplexer als die der physikalischen Atome, sowohl in der Struktur als auch in der Anzahl der Varianten.
Bei der Auswahl der Isotope wurde die Anzahl der „Anu“ von beiden ursprünglichen Atomkernen, aber auch deren Natürliche Häufigkeit (NH) oder deren Halbwertzeit berücksichtigt. Es wurden meist Isotope gewählt, die auch mit höherer Wahrscheinlichkeit bei der Beobachtung aufgefunden werden konnten. Dies ist nicht immer ganz einfach, weil auch Zählfehler und Hochrechnungsfehler bei ähnlichen Fragmenten der okkulten Atome aufgetreten sind.
Es zeigt sich, das es in vielen Fällen erstaunlich gute Übereinstimmungen gibt. Bei einigen Elementen ist eine Zuordnung etwas schwierig oder es mussten 2 verschiedene Isotope gewählt werden. Es ist leider nicht in allen Fällen eindeutig bestimmbar, welche Isotope zu den Elementen der Okkulten Chemie gehören. Es ist auch denkbar, dass Kernprozesse, die Beobachtung oder andere Einflüsse die entstehenden okkulten Strukturen noch beeinflussen können.
Es ist auch nicht klar, wie viele Sitzungen für die Analyse einer okkulten Struktur nötig waren und ob ggf. in einigen Fällen die Bilder von verschiedenen Isotopen (mehrere Beobachtungen) in ein Bild eingeflossen sind.
Wenn wir die komplexen geometrischen Strukturen der Elemente aus der Sicht der Okkulten Chemie betrachten, kann eine Sortierung der Isotope allein nach der Massenzahl und der Ladung nicht vollständig sein.
Es kann bei der gleichen Kernladungszahl und der gleichen Nukleonenzahl auch mehrere geometrische Strukturen oder Varianten geben.
Je nach Art und Anordnung der Anu können sich verschiedene Eigenschaften ergeben. Ob dies mit Größen wie z.B. Masse, Ladung oder Spin in den physikalischen Atomen in Zusammenhang steht, muss noch besser erforscht werden.
Nach der Wissenschaft ist ein Atomkern oder auch ein ganzes physikalisches Atom ein Fermion, wenn sein Gesamtspin halbzahlig ist, und ein Boson, wenn sein Gesamtspin ganzzahlig ist.
Somit verhalten sich manche Isotope von physikalischen Atomen wie Fermionen und andere wie Bosonen.
Die heutige Wissenschaft kann sehr genau die Nukleonenzahlen (Protonen und Neutronen), die Ladung, den Spin bestimmen, aber über die tatsächliche Struktur der Elemente
kann nur über indirekte Experimente, Modelle und teilweise über zerstörerische Prozesse (z.B. Teilchenbeschleuniger) Erfahrung gewonnen werden.
Kein heute bekanntes Messgerät kann subatomare Strukturen bildgebend auflösen. Um subatomare Strukturen indirekt zu rekonstruieren, nutzen Physiker:
Streuexperimente (z. B. Elektronen-Proton-Streuung), Kollisionsdaten aus Teilchenbeschleunigern (LHC, DESY), Formfaktoren und Wellenfunktionen, Rekonstruktion über theoretische Modelle (Quantenchromodynamik).
Die physikalisch noch nicht verstandene Sicht der Okkulten Chemie auf die Elemente zeigt an den „lebendigen Atomen“, mit einer „höheren“ Sicht, wie sich die Struktur und die Dynamik in Form von okkulten Abbildern der Elemente darstellt.
An der Entstehung dieser Abbilder könnten Quantenprozesse, höhere Dimensionen oder auch das Phänomen der Verschränkung beteiligt sein. Es gibt aber bislang kein anerkanntes oder gar belegtes Erklärungsmodell.
Nach der Ansicht der hellsichtigen Forscher geht diese Art der Wahrnehmung auch noch weit über die bekannte Materie hinaus, in höhere subtilere Ebenen mit eigenen Gesetzen (Ätherisch, Astral, usw.).
Da es hier um die Beobachtung von Objekten auf der Quanten-Ebene geht, ist auch in der Okkulten Chemie eine Beeinflussung durch den Beobachter sehr wahrscheinlich.
Die in der Okkulten Chemie beobachteten Strukturen haben sehr wahrscheinlich etwas mit den physikalischen Atomen oder Molekülen zu tun. Es ist jedoch noch unklar, wie diese Abbilder entstehen oder was genau diese darstellen.
In der Okkulten Chemie wurde die Anzahl der Anu über aufwändige Zählungen in den teilweise sehr komplexen Strukturen (okkulte Atome oder okkulte Moleküle und deren Fragmente) bestimmt. Es ist dabei auch die Rede von Ladungen, Bewegungen, Rotationen, Vibrationen, verschiedensten Kräften, höheren Dimensionen und auch noch kleineren Teilchen bis hin zu Blasenstrukturen in einem massivem und tragendem Hintergrundmedium, die aber bislang nicht eindeutig in der bekannten Physik zugeordnet werden können. Eine Kombination von hellsichtigen Beobachtungen und wissenschaftlichen Experimenten könnte hier weitere neue Erkenntnisse liefern.
Die Bestimmung und Analyse der Elemente war in der Okkulten Chemie sicherlich sehr aufwändig und bei diesen Forschungen ab dem Jahre 1895 war noch nicht bekannt, dass von einzelnen Elementen später einmal so viele Isotope mit unterschiedlichen Halbwertszeiten entdeckt werden würden.
Die Entdeckung von Isotopen erfolgte erstmals durch Frederick Soddy, der 1910 Atome desselben radioaktiven Elements mit unterschiedlicher Masse nachweisen konnte.
Auch wenn die Wissenschaft schon vieles entdeckt hat, hat diese dennoch ihre Grenzen. Es werden vor allem Werte wie Masse, Ladung, Spin, Lebensdauer ermittelt und es gibt auch viele Theorien (z.B. Standardmodell der Elementarteilchenphysik, Quantenphysik, Quantenchromodynamik, Quantenfeldtheorie, Superstring-Theorie, usw.), die alle auf bestimmten Experimenten, Modellen oder Grundannahmen basieren.
Auch Außenseiter-Physiker (wie z.B. Burkhard Heim mit seiner Einheitlichen strukturellen Quantenfeldtheorie, Elementarstrukturen der Materie und Einheitlichen Beschreibung der Welt) haben interessante Ansätze gefunden, welche die Erkenntnis sehr bereichern könnten. Es wird sich sicherlich irgendwann zeigen, ob die Forschungen und Rohdaten der Okkulten Chemie „Esotherischer Unsinn“ sind, oder ob eventuell mehr dahinter steckt.
Es deutet vieles darauf hin, dass hier tiefere Wahrheiten verborgen liegen, wie auch meine Entdeckungen im Zusammenhang mit dem Spiral-Struktur-Periodensystem gezeigt haben.

Urheber: Martin Röder 21.06.2025

| Protonen | Element (deutsch) | Symbol | Anzahl der Anu (Ur-Atome) | Äußere Form (deutsch) | Analyse der Struktur der Elemente - Aufbau aus verschiedenen Fragmenten/Gruppen der okkulten Chemie | | Delta Anu | (X+Y) *2 | X+Y | X | Y | u | d | P | Element | N | N-P | M | Isotop | Halbwertszeit | Spin / Parität | NH (%) | Masse (u) | Masse (u) *18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 9 | 4 | 5 | 1 | 2 | 0 | N Neutron | 1 | | 1 | 1n | 613,9 s | 1/2+ | | 1,008 664 915 85(49) | 18,2 |
| | | | | | | | | | 9 | 5 | 4 | 2 | 1 | 1 | P Proton | 0 | | 1 | 1p | Stabil (>10e32 a) | 1/2+ | | 1,007 276 466 621(53) | 18,1 |
| 1 | Wasserstoff | H | 18 | Ovoid (Ei) | (2H3'+H3)+(3H3) | | 0 | 18 | 9 | 5 | 4 | 2 | 1 | 1 | Wasserstoff | 0 | -1 | 1 | 1H | stabil | 1/2+ | 99,9885 | 1,007 825 031 90(1) | 18,1 |
| 1 | Adyarium | Ad | 36 | Ovoid (Ei) / Sterntetraeder | 4H3+4Ad6 oder Ad12+Ad24 | ? | 0 | 36 | 18 | 9 | 9 | 3 | 3 | 1 | | 1 | 0 | 2 | 2H | stabil | 1 | 0,0115 | 2,014 101 777 84(2) | 36,3 |
| | | | | | | | | 54 | 27 | 13 | 14 | 4 | 5 | 1 | | 2 | 1 | 3 | 3H | 12,32(2) a | 1/2+ | ≈ 10e−15 | 3,016 049 277 9(24) | 54,3 |
| | | | | | | | | 72 | 36 | 17 | 19 | 5 | 7 | 1 | | 3 | 2 | 4 | 4H | 1,39·10e−21 s | 2− | | 4,026 43(11) | 72,5 |
| | | | | | | | | 90 | 45 | 21 | 24 | 6 | 9 | 1 | | 4 | 3 | 5 | 5H | 8,61·10e−23 s | (1/2+) | | 5,035 31(10) | 90,6 |
| | | | | | | | | 108 | 54 | 25 | 29 | 7 | 11 | 1 | | 5 | 4 | 6 | 6H | 2,94·10e−22 s | 2−# | | 6,044 96(27) | 108,8 |
| | | | | | | | | 126 | 63 | 29 | 34 | 8 | 13 | 1 | | 6 | 5 | 7 | 7H | 5,07·10e−21 s | 1/2+# | | 7,05275(108)# | 126,9 |
| 2 | Occultum | Oc | 54 | Ovoid (Ei) | 2H3+Ad24+Oc15+Oc9 | ? | 0 | 54 | 27 | 14 | 13 | 5 | 4 | 2 | Helium | 1 | -1 | 3 | 3He | stabil | 1/2+ | 0,000134 | 3,016 029 321 97(6) | 54,3 |
| 2 | Helium | He | 72 | Stern (6x) | 2H3+(2H3'+H3)+(3H3)+2Ad24 | | 0 | 72 | 36 | 18 | 18 | 6 | 6 | 2 | | 2 | 0 | 4 | 4He | stabil | 0 | 99,999866 | 4,002 603 254 13(16) | 72,0 |
| | | | | | | | | 90 | 45 | 22 | 23 | 7 | 8 | 2 | | 3 | 1 | 5 | 5He | 7,04·10e−22 s | 3/2− | | 5,012 057(21) | 90,2 |
| | | | | | | | | 108 | 54 | 26 | 28 | 8 | 10 | 2 | | 4 | 2 | 6 | 6He | 806,7 ms | 0 | | 6,018 885 89(6) | 108,3 |
| | | | | | | | | 126 | 63 | 30 | 33 | 9 | 12 | 2 | | 5 | 3 | 7 | 7He | 3,04·10e−21 s | 3/2− | | 7,027 991(8) | 126,5 |
| | | | | | | | | 144 | 72 | 34 | 38 | 10 | 14 | 2 | | 6 | 4 | 8 | 8He | 119,1 ms | 0 | | 8,033 934 39(10) | 144,6 |
| | | | | | | | | 162 | 81 | 38 | 43 | 11 | 16 | 2 | | 7 | 5 | 9 | 9He | 2,5·10e−21 s | 1/2− | | 9,043 950(50) | 162,8 |
| | | | | | | | | 180 | 90 | 42 | 48 | 12 | 18 | 2 | | 8 | 6 | 10 | 10He | 1,5·10e−21 s | 0 | | 10,052 82(10) | 181,0 |
| | | | | | | | | 72 | 36 | 19 | 17 | 7 | 5 | 3 | Lithium | 1 | -2 | 4 | 4Li | 9,1(9)·10e−23 s | 2− | | 4,027 19(23) | 72,5 |
| | | | | | | | | 90 | 45 | 23 | 22 | 8 | 7 | 3 | | 2 | -1 | 5 | 5Li | 3,71·10e−22 s | 3/2− | | 5,012 540(50) | 90,2 |
| | | | | | | | | 108 | 54 | 27 | 27 | 9 | 9 | 3 | | 3 | 0 | 6 | 6Li | stabil | 1 | 7,59 | 6,015 122 8874(15) | 108,3 |
| | | | | | | | | 108 | 54 | 27 | 27 | 9 | 9 | 3 | | 3 | 0 | 6 | 6mLi | 5,6·10e−17 s | 0 | | | |
| 3 | Lithium | Li | 127 | Dorn | (4Li4)+Li63+8Ad6 | | -1 | 126 | 63 | 31 | 32 | 10 | 11 | 3 | | 4 | 1 | 7 | 7Li | stabil | 3/2− | 92,41 | 7,016 003 434(3) | 126,3 |
| | | | | | | | | 144 | 72 | 35 | 37 | 11 | 13 | 3 | | 5 | 2 | 8 | 8Li | 839,9 ms | 2 | | 8,022 486 24(5) | 144,4 |
| | | | | | | | | 162 | 81 | 39 | 42 | 12 | 15 | 3 | | 6 | 3 | 9 | 9Li | 178,3 ms | 3/2− | | 9,026 790 19(20) | 162,5 |
| | | | | | | | | 180 | 90 | 43 | 47 | 13 | 17 | 3 | | 7 | 4 | 10 | 10Li | 2,0(5)·10e−21 s | (1−, 2−) | | 10,035 483(14) | 180,6 |
| | | | | | | | | 180 | 90 | 43 | 47 | 13 | 17 | 3 | | 7 | 4 | 10 | 10m1Li | 3,7(15)·10e−21 s | 1 | | | |
| | | | | | | | | 180 | 90 | 43 | 47 | 13 | 17 | 3 | | 7 | 4 | 10 | 10m2Li | 1,35(24)·10e−21 s | 2 | | | |
| | | | | | | | | 198 | 99 | 47 | 52 | 14 | 19 | 3 | | 8 | 5 | 11 | 11Li | 8,75 ms | 3/2− | | 11,043 723 6(7) | 198,8 |
| | | | | | | | | 216 | 108 | 51 | 57 | 15 | 21 | 3 | | 9 | 6 | 12 | 12Li | <10 ns | (1−, 2−) | | 12,052 610(30) | 216,9 |
| | | | | | | | | 234 | 117 | 55 | 62 | 16 | 23 | 3 | | 10 | 7 | 13 | 13Li | 3,3·10e−21 s | 3/2−# | | 13,061 171 503(80) | 235,1 |
| | | | | | | | | 90 | 45 | 24 | 21 | 9 | 6 | 4 | Beryllium | 1 | -3 | 5 | 5Be | | | | 5,0399(22#) | 90,7 |
| | | | | | | | | 108 | 54 | 28 | 26 | 10 | 8 | 4 | | 2 | -2 | 6 | 6Be | 5,0(3)·10e−21 s | 0 | | 6,019 7264(58) | 108,4 |
| | | | | | | | | 126 | 63 | 32 | 31 | 11 | 10 | 4 | | 3 | -1 | 7 | 7Be | 53,12 d | 3/2− | | 7,016 928 717(76) | 126,3 |
| | | | | | | | | 144 | 72 | 36 | 36 | 12 | 12 | 4 | | 4 | 0 | 8 | 8Be | 6,7(17)·10e−17 s | 0 | | 8,005 305 102(37) | 144,1 |
| 4 | Beryllium | Be | 164 | Tetraeder A | Be4+4 (4Be10) | | -2 | 162 | 81 | 40 | 41 | 13 | 14 | 4 | | 5 | 1 | 9 | 9Be | stabil | 3/2− | 100 | 9,012 183 065(82) | 162,2 |
| | | | | | | | | 180 | 90 | 44 | 46 | 14 | 16 | 4 | | 6 | 2 | 10 | 10Be | 1,387·106 a | 0 | | 10,013 534 695(86) | 180,2 |
| | | | | | | | | 180 | 90 | 44 | 46 | 14 | 16 | 4 | | 6 | 2 | 10 | 10m1Be | 8·10e−13 s | 0 | | 10,020 166 85 | 180,4 |
| | | | | | | | | 198 | 99 | 48 | 51 | 15 | 18 | 4 | | 7 | 3 | 11 | 11Be | 13,81 s | 1/2+ | | 11,021 661 08(26) | 198,4 |
| | | | | | | | | 216 | 108 | 52 | 56 | 16 | 20 | 4 | | 8 | 4 | 12 | 12Be | 23,6 ms | 0 | | 12,026 9221(20) | 216,5 |
| | | | | | | | | 234 | 117 | 56 | 61 | 17 | 22 | 4 | | 9 | 5 | 13 | 13Be | 2,01 ms | 5/2+ | | 13,036 135(11) | 234,7 |
| | | | | | | | | 252 | 126 | 60 | 66 | 18 | 24 | 4 | | 10 | 6 | 14 | 14Be | 4,35 ms | 0 | | 14,042 89(14) | 252,8 |
| | | | | | | | | 270 | 135 | 64 | 71 | 19 | 26 | 4 | | 11 | 7 | 15 | 15Be | < 200 ns | 5/2+ | | 15,053 42(43#) | 271,0 |
| | | | | | | | | 288 | 144 | 68 | 76 | 20 | 28 | 4 | | 12 | 8 | 16 | 16Be | < 200 ns | 0 | | 16,061 67(18) | 289,1 |
| | | | | | | | | 108 | 54 | 29 | 25 | 11 | 7 | 5 | Bor | 1 | -4 | 6 | 6B | | | | 6,0508(22#) | 108,9 |
| | | | | | | | | 126 | 63 | 33 | 30 | 12 | 9 | 5 | | 2 | -3 | 7 | 7B | 3,50·10e−22 s | 3/2− | | 7,029 712(27) | 126,5 |
| | | | | | | | | 144 | 72 | 37 | 35 | 13 | 11 | 5 | | 3 | -2 | 8 | 8B | 770 ms | 2 | | 8,024 6073(11) | 144,4 |
| | | | | | | | | 162 | 81 | 41 | 40 | 14 | 13 | 5 | | 4 | -1 | 9 | 9B | 8,439·10e−19 s | 3/2− | | 9,013 329 65(97) | 162,2 |
| | | | | | | | | 180 | 90 | 45 | 45 | 15 | 15 | 5 | | 5 | 0 | 10 | 10B | stabil | 3 | 19,9 | 10,012 936 95(41) | 180,2 |
| 5 | Bor | B | 200 | Würfel A | (4B5)+6 [4(2H3)+Ad6] | | -2 | 198 | 99 | 49 | 50 | 16 | 17 | 5 | | 6 | 1 | 11 | 11B | stabil | 3/2− | 80,1 | 11,009 305 36(45) | 198,2 |
| | | | | | | | | 216 | 108 | 53 | 55 | 17 | 19 | 5 | | 7 | 2 | 12 | 12B | 20,20 ms | 1 | | 12,014 3527(14) | 216,3 |
| | | | | | | | | 234 | 117 | 57 | 60 | 18 | 21 | 5 | | 8 | 3 | 13 | 13B | 17,36 ms | 3/2− | | 13,017 7802(12) | 234,3 |
| | | | | | | | | 252 | 126 | 61 | 65 | 19 | 23 | 5 | | 9 | 4 | 14 | 14B | 13,8 ms | 2− | | 14,025 404(23) | 252,5 |
| | | | | | | | | 270 | 135 | 65 | 70 | 20 | 25 | 5 | | 10 | 5 | 15 | 15B | 10,5 ms | 3/2− | | 15,031 088(23) | 270,6 |
| | | | | | | | | 288 | 144 | 69 | 75 | 21 | 27 | 5 | | 11 | 6 | 16 | 16B | < 190·10e−12 s | 0 | | 16,039 842(26) | 288,7 |
| | | | | | | | | 306 | 153 | 73 | 80 | 22 | 29 | 5 | | 12 | 7 | 17 | 17B | 5,08 ms | 3/2− | | 17,046 99(18) | 306,8 |
| | | | | | | | | 324 | 162 | 77 | 85 | 23 | 31 | 5 | | 13 | 8 | 18 | 18B | 26 ns | 4− | | 18,055 66(18) | 325,0 |
| | | | | | | | | 342 | 171 | 81 | 90 | 24 | 33 | 5 | | 14 | 9 | 19 | 19B | 2,92 ms | 3/2− | | 19,063 10(43#) | 343,1 |
| | | | | | | | | 360 | 180 | 85 | 95 | 25 | 35 | 5 | | 15 | 10 | 20 | 20B | | | | 20,072 07(75#) | 361,3 |
| | | | | | | | | 378 | 189 | 89 | 100 | 26 | 37 | 5 | | 16 | 11 | 21 | 21B | | | | 21,081 29(97#) | 379,5 |
| | | | | | | | | 144 | 72 | 38 | 34 | 14 | 10 | 6 | Kohlenstoff | 2 | -4 | 8 | 8C | 1,981·10e−21 s | 0 | | 8,037 643(20) | 144,7 |
| | | | | | | | | 162 | 81 | 42 | 39 | 15 | 12 | 6 | | 3 | -3 | 9 | 9C | 126,5 ms | 3/2− | | 9,031 0372(23) | 162,6 |
| | | | | | | | | 180 | 90 | 46 | 44 | 16 | 14 | 6 | | 4 | -2 | 10 | 10C | 19,255 s | 0 | | 10,016 853 31(42) | 180,3 |
| | | | | | | | | 180 | 90 | 46 | 44 | 16 | 14 | 6 | | 4 | -2 | 10 | 10m1C | 10,7·10e−15 s | 2 | | 10,020 452 84 | 180,4 |
| | | | | | | | | 198 | 99 | 50 | 49 | 17 | 16 | 6 | | 5 | -1 | 11 | 11C | 20,39 min | 3/2− | | 11,011 4336(10) | 198,2 |
| 6 | Kohlenstoff | C | 216 | Oktaeder A | 4+4 (C27+C26) | | 0 | 216 | 108 | 54 | 54 | 18 | 18 | 6 | | 6 | 0 | 12 | 12C | stabil | 0 | 98,9 | 12 | 216,0 |
| | | | | | | | | 234 | 117 | 58 | 59 | 19 | 20 | 6 | | 7 | 1 | 13 | 13C | stabil | 1/2− | 1,1 | 13,003 354 835 07(23) | 234,1 |
| | | | | | | | | 252 | 126 | 62 | 64 | 20 | 22 | 6 | | 8 | 2 | 14 | 14C | 5730 a | 0 | | 14,003 241 9884(40) | 252,1 |
| | | | | | | | | 270 | 135 | 66 | 69 | 21 | 24 | 6 | | 9 | 3 | 15 | 15C | 2,449 s | 1/2+ | | 15,010 599 26(86) | 270,2 |
| | | | | | | | | 288 | 144 | 70 | 74 | 22 | 26 | 6 | | 10 | 4 | 16 | 16C | 0,747 s | 0 | | 16,014 7013(38) | 288,3 |
| | | | | | | | | 306 | 153 | 74 | 79 | 23 | 28 | 6 | | 11 | 5 | 17 | 17C | 0,193 s | | | 17,022 577(19) | 306,4 |
| | | | | | | | | 324 | 162 | 78 | 84 | 24 | 30 | 6 | | 12 | 6 | 18 | 18C | 0,095 s | 0 | | 18,026 751(32) | 324,5 |
| | | | | | | | | 342 | 171 | 82 | 89 | 25 | 32 | 6 | | 13 | 7 | 19 | 19C | 0,046 s | | | 19,034 80(11) | 342,6 |
| | | | | | | | | 360 | 180 | 86 | 94 | 26 | 34 | 6 | | 14 | 8 | 20 | 20C | 0,014 s | 0 | | 20,040 32(26) | 360,7 |
| | | | | | | | | 378 | 189 | 90 | 99 | 27 | 36 | 6 | | 15 | 9 | 21 | 21C | 30 ns | 1/2+ | | 21,049 00(43#) | 378,9 |
| | | | | | | | | 396 | 198 | 94 | 104 | 28 | 38 | 6 | | 16 | 10 | 22 | 22C | 6,1 ms | 0 | | 22,057 53(26) | 397,0 |
| | | | | | | | | 414 | 207 | 98 | 109 | 29 | 40 | 6 | | 17 | 11 | 23 | 23C | | | | 23,0689(11#) | 415,2 |
| | | | | | | | | 180 | 90 | 47 | 43 | 17 | 13 | 7 | Stickstoff | 3 | -4 | 10 | 10N | 2·10e−22 s | 2− | | 10,041 65(43) | 180,7 |
| | | | | | | | | 198 | 99 | 51 | 48 | 18 | 15 | 7 | | 4 | -3 | 11 | 11N | 5,49·10e−22 s | 1/2+ | | 11,026 091(50) | 198,5 |
| | | | | | | | | 216 | 108 | 55 | 53 | 19 | 17 | 7 | | 5 | -2 | 12 | 12N | 11,000 ms | 1 | | 12,018 6132(11) | 216,3 |
| | | | | | | | | 234 | 117 | 59 | 58 | 20 | 19 | 7 | | 6 | -1 | 13 | 13N | 9,965 min | 1/2− | | 13,005 738 61(29) | 234,1 |
| 7 | Stickstoff | N | 261 | Ovoid (Ei) | N110+N63+2N24+2N20 | 1 | -9 | 252 | 126 | 63 | 63 | 21 | 21 | 7 | | 7 | 0 | 14 | 14N | stabil | 1 | 99,634 | 14,003 074 004 43(20) | 252,1 |
| | | | | | | | | 252 | 126 | 63 | 63 | 21 | 21 | 7 | | 7 | 0 | 14 | 14m1N | 13,2·10e−15 s | 4− | | 14,012 188 38 | 252,2 |
| | | | | | | | | 252 | 126 | 63 | 63 | 21 | 21 | 7 | | 7 | 0 | 14 | 14m2N | 73·10e−15 s | 5 | | 14,012 697 24 | 252,2 |
| | | | | | | | | 252 | 126 | 63 | 63 | 21 | 21 | 7 | | 7 | 0 | 14 | 14m3N | 9·10e−15 s | 3 | | 14,012 874 37 | 252,2 |
| 7 | Stickstoff | N | 261 | Ovoid (Ei) | N110+N63+2N24+2N20 | 2 | 9 | 270 | 135 | 67 | 68 | 22 | 23 | 7 | | 8 | 1 | 15 | 15N | stabil | 1/2− | 0,366 | 15,000 108 898 88(64) | 270,0 |
| | | | | | | | | 288 | 144 | 71 | 73 | 23 | 25 | 7 | | 9 | 2 | 16 | 16N | 7,13 s | 2− | | 16,006 1019(25) | 288,1 |
| | | | | | | | | 288 | 144 | 71 | 73 | 23 | 25 | 7 | | 9 | 2 | 16 | 16m1N | 7,3 ms | 0 | | 16,006 230 53 | 288,1 |
| | | | | | | | | 306 | 153 | 75 | 78 | 24 | 27 | 7 | | 10 | 3 | 17 | 17N | 4,173 s | 1/2− | | 17,008 449(16) | 306,2 |
| | | | | | | | | 324 | 162 | 79 | 83 | 25 | 29 | 7 | | 11 | 4 | 18 | 18N | 624 ms | 1− | | 18,014 078(20) | 324,3 |
| | | | | | | | | 342 | 171 | 83 | 88 | 26 | 31 | 7 | | 12 | 5 | 19 | 19N | 304 ms | 1/2− | | 19,017 022(18) | 342,3 |
| | | | | | | | | 360 | 180 | 87 | 93 | 27 | 33 | 7 | | 13 | 6 | 20 | 20N | 100 ms | | | 20,023 366(60) | 360,4 |
| | | | | | | | | 378 | 189 | 91 | 98 | 28 | 35 | 7 | | 14 | 7 | 21 | 21N | 85 ms | 1/2− | | 21,027 11(10) | 378,5 |

| | | | | | |
|---|---|---|---|---|---|
| 8 | Sauerstoff (Variante 1) | O | 290 | Ovoid (Ei) / Spirale | (55N2+5.O.7)+(55N2+5.O.7') (55N2+5.O.7)(Kugeln+Scheiben) |
| 8 | Sauerstoff (Variante 2) | O | 310 | Ovoid (Ei) / Spirale | (55N2+5.O.7)+(55N2+5.O.7')+4 |
| 8 | Sauerstoff (Variante 3) | O | 348 | Ovoid (Ei) / Spirale | (66N2+6.O.7)+(66N2+6.O.7') |
| 9 | Fluor | F | 340 | Dorn | 2N110+8 (2Be4+H3'+Li4) |
| 10 | Neon | Ne | 360 | Stern (6x) | Ne120+6 [Ne22+(3Li4)+(2H3)] |
| 10 | Meta-Neon | mNe | 402 | Stern (6x) | Ne120+6 [Ne22+mNe15+L7+H3] |
| 11 | Natrium | Na | 418 | Hantel | Na14+2Na10+24Na16 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 396 | 198 | 95 | 103 | 29 | 37 | 7 | | 15 | 8 | 22 | 22N | 24 ms | | | 22,034 39(21) | 396,6 |
| | 414 | 207 | 99 | 108 | 30 | 39 | 7 | | 16 | 9 | 23 | 23N | 14,5 ms | | | 23,041 14(32#) | 414,7 |
| | 432 | 216 | 103 | 113 | 31 | 41 | 7 | | 17 | 10 | 24 | 24N | 52 ns | | | 24,050 39(43#) | 432,9 |
| | 450 | 225 | 107 | 118 | 32 | 43 | 7 | | 18 | 11 | 25 | 25N | | 1/2− | | 25,060 10(54#) | 451,1 |
| | 216 | 108 | 56 | 52 | 20 | 16 | 8 | Sauerstoff | 4 | -4 | 12 | 12O | 1,14275·10e−21 s | 0 | | 12,034 262(26) | 216,6 |
| | 234 | 117 | 60 | 57 | 21 | 18 | 8 | | 5 | -3 | 13 | 13O | 8,58 ms | 3/2− | | 13,024 815(10) | 234,4 |
| | 252 | 126 | 64 | 62 | 22 | 20 | 8 | | 6 | -2 | 14 | 14O | 70,606 s | 0 | | 14,008 596 36(12) | 252,2 |
| | 270 | 135 | 68 | 67 | 23 | 22 | 8 | | 7 | -1 | 15 | 15O | 122,24 s | 1/2− | | 15,003 065 62(53) | 270,1 |
| -2 | 288 | 144 | 72 | 72 | 24 | 24 | 8 | | 8 | 0 | 16 | 16O | stabil | 0 | 99,762 | 15,994 914 619 57(17) | 287,9 |
| -4 | 306 | 153 | 76 | 77 | 25 | 26 | 8 | | 9 | 1 | 17 | 17O | stabil | 5/2+ | 0,038 | 16,999 131 756 50(69) | 306,0 |
| ? -24 | 324 | 162 | 80 | 82 | 26 | 28 | 8 | | 10 | 2 | 18 | 18O | stabil | 0 | 0,2 | 17,999 159 612 86(76) | 324,0 |
| | 342 | 171 | 84 | 87 | 27 | 30 | 8 | | 11 | 3 | 19 | 19O | 26,91 s | 5/2+ | | 19,003 5780(28) | 342,1 |
| | 360 | 180 | 88 | 92 | 28 | 32 | 8 | | 12 | 4 | 20 | 20O | 13,51 s | 0 | | 20,004 075 35(95) | 360,1 |
| | 378 | 189 | 92 | 97 | 29 | 34 | 8 | | 13 | 5 | 21 | 21O | 3,42 s | 5/2+ | | 21,008 655(13) | 378,2 |
| | 396 | 198 | 96 | 102 | 30 | 36 | 8 | | 14 | 6 | 22 | 22O | 2,25 s | 0 | | 22,009 966(61) | 396,2 |
| | 414 | 207 | 100 | 107 | 31 | 38 | 8 | | 15 | 7 | 23 | 23O | 82 ms | 1/2+ | | 23,015 696(97) | 414,3 |
| | 432 | 216 | 104 | 112 | 32 | 40 | 8 | | 16 | 8 | 24 | 24O | 61 ms | 0 | | 24,019 86(12) | 432,4 |
| | 450 | 225 | 108 | 117 | 33 | 42 | 8 | | 17 | 9 | 25 | 25O | 50 ns | 3/2+ | | 25,029 36(12) | 450,5 |
| | 468 | 234 | 112 | 122 | 34 | 44 | 8 | | 18 | 10 | 26 | 26O | 40 ns | 0 | | 26,037 29(17) | 468,7 |
| | 486 | 243 | 116 | 127 | 35 | 46 | 8 | | 19 | 11 | 27 | 27O | 260 ns | | | 27,047 72(54#) | 486,9 |
| | 504 | 252 | 120 | 132 | 36 | 48 | 8 | | 20 | 12 | 28 | 28O | 100 ns | 0 | | 28,055 91(75#) | 505,0 |
| | 252 | 126 | 65 | 61 | 23 | 19 | 9 | Fluor | 5 | -4 | 14 | 14F | | 2− | | 14,034 315(44) | 252,6 |
| | 270 | 135 | 69 | 66 | 24 | 21 | 9 | | 6 | -3 | 15 | 15F | 4,10·10e−22 s | 1/2+ | | 15,018 043(67) | 270,3 |
| | 288 | 144 | 73 | 71 | 25 | 23 | 9 | | 7 | -2 | 16 | 16F | 11·10e−21 s | 0 | | 16,011 4657(89) | 288,2 |
| | 306 | 153 | 77 | 76 | 26 | 25 | 9 | | 8 | -1 | 17 | 17F | 64,49 s | 5/2+ | | 17,002 095 24(27) | 306,0 |
| | 324 | 162 | 81 | 81 | 27 | 27 | 9 | | 9 | 0 | 18 | 18F | 109,771 min | 1 | | 18,000 937 33(50) | 324,0 |
| | 324 | 162 | 81 | 81 | 27 | 27 | 9 | | 9 | 0 | 18 | 18m1F | 46·10e−15 s | 1− | | 18,006 154 63 | 324,1 |
| | 324 | 162 | 81 | 81 | 27 | 27 | 9 | | 9 | 0 | 18 | 18m2F | 21·10e−15 s | 4 | | 18,006 624 41 | 324,1 |
| | 324 | 162 | 81 | 81 | 27 | 27 | 9 | | 9 | 0 | 18 | 18m3F | 44·10e−15 s | 3− | | 18,006 843 84 | 324,1 |
| | 324 | 162 | 81 | 81 | 27 | 27 | 9 | | 9 | 0 | 18 | 18m4F | 10·10e−15 s | 2− | | 18,007 148 73 | 324,1 |
| 2 | 342 | 171 | 85 | 86 | 28 | 29 | 9 | | 10 | 1 | 19 | 19F | stabil | 1/2+ | 100 | 18,998 403 162 73(92) | 342,0 |
| | 342 | 171 | 85 | 86 | 28 | 29 | 9 | | 10 | 1 | 19 | 19m1F | 10,7·10e−15 s | 5/2− | | 19,003 430 51 | 342,1 |
| | 342 | 171 | 85 | 86 | 28 | 29 | 9 | | 10 | 1 | 19 | 19m2F | 21·10e−15 s | 5/2+ | | 19,003 8858 | 342,1 |
| | 342 | 171 | 85 | 86 | 28 | 29 | 9 | | 10 | 1 | 19 | 19m3F | 1·10e−16 s | 1/2+ | | 19,004 133 15 | 342,1 |
| | 342 | 171 | 85 | 86 | 28 | 29 | 9 | | 10 | 1 | 19 | 19m4F | 1 s | 7/2+ | | 19,004 268 95 | 342,1 |
| | 342 | 171 | 85 | 86 | 28 | 29 | 9 | | 10 | 1 | 19 | 19m5F | 9·10e−16 s | 5/2− | | 19,004 438 03 | 342,1 |
| | 360 | 180 | 89 | 91 | 29 | 31 | 9 | | 11 | 2 | 20 | 20F | 11,163 s | 2 | | 19,999 981 252(31) | 360,0 |
| | 378 | 189 | 93 | 96 | 30 | 33 | 9 | | 12 | 3 | 21 | 21F | 4,158 s | 5/2+ | | 20,999 9489(19) | 378,0 |
| | 396 | 198 | 97 | 101 | 31 | 35 | 9 | | 13 | 4 | 22 | 22F | 4,23 s | 3 | | 22,002 999(13) | 396,1 |
| | 414 | 207 | 101 | 106 | 32 | 37 | 9 | | 14 | 5 | 23 | 23F | 2,23 s | 5/2+ | | 23,003 557(54) | 414,1 |
| | 432 | 216 | 105 | 111 | 33 | 39 | 9 | | 15 | 6 | 24 | 24F | 400 ms | 3 | | 24,008 115(78) | 432,1 |
| | 450 | 225 | 109 | 116 | 34 | 41 | 9 | | 16 | 7 | 25 | 25F | 50 ms | 5/2+ | | 25,012 199(81) | 450,2 |
| | 468 | 234 | 113 | 121 | 35 | 43 | 9 | | 17 | 8 | 26 | 26F | 10,2 ms | 1 | | 26,020 038(83) | 468,4 |
| | 486 | 243 | 117 | 126 | 36 | 45 | 9 | | 18 | 9 | 27 | 27F | 4,9 ms | 5/2+ | | 27,026 44(20) | 486,5 |
| | 504 | 252 | 121 | 131 | 37 | 47 | 9 | | 19 | 10 | 28 | 28F | 40 ns | | | 28,035 34(21) | 504,6 |
| | 522 | 261 | 125 | 136 | 38 | 49 | 9 | | 20 | 11 | 29 | 29F | 2,6 ms | 5/2+ | | 29,042 54(54#) | 522,8 |
| | 540 | 270 | 129 | 141 | 39 | 51 | 9 | | 21 | 12 | 30 | 30F | 260 ns | | | 30,051 65(64#) | 540,9 |
| | 558 | 279 | 133 | 146 | 40 | 53 | 9 | | 22 | 13 | 31 | 31F | > 260 ns | | | 31,059 71(56#) | 559,1 |
| | 288 | 144 | 74 | 70 | 26 | 22 | 10 | Neon | 6 | -4 | 16 | 16Ne | 9·10e−21 s | 0 | | 16,025 750(22) | 288,5 |
| | 306 | 153 | 78 | 75 | 27 | 24 | 10 | | 7 | -3 | 17 | 17Ne | 109,2 ms | 1/2− | | 17,017 713 96(38) | 306,3 |
| | 324 | 162 | 82 | 80 | 28 | 26 | 10 | | 8 | -2 | 18 | 18Ne | 1,672 s | 0 | | 18,005 708 70(39) | 324,1 |
| | 342 | 171 | 86 | 85 | 29 | 28 | 10 | | 9 | -1 | 19 | 19Ne | 17,22 s | 1/2+ | | 19,001 880 91(17) | 342,0 |
| 0 | 360 | 180 | 90 | 90 | 30 | 30 | 10 | | 10 | 0 | 20 | 20Ne | stabil | 0 | 90,48 | 19,992 440 1762(17) | 359,9 |
| | 360 | 180 | 90 | 90 | 30 | 30 | 10 | | 10 | 0 | 20 | 20m1Ne | 0,139 ps | 3− | | 19,998 475 03 | 360,0 |
| | 378 | 189 | 94 | 95 | 31 | 32 | 10 | | 11 | 1 | 21 | 21Ne | stabil | 3/2+ | 0,27 | 20,993 846 685(41) | 377,9 |
| -6 | 396 | 198 | 98 | 100 | 32 | 34 | 10 | | 12 | 2 | 22 | 22Ne | stabil | 0 | 9,25 | 21,991 385 114(18) | 395,8 |
| | 414 | 207 | 102 | 105 | 33 | 36 | 10 | | 13 | 3 | 23 | 23Ne | 37,24 s | 5/2+ | | 22,994 466 91(11) | 413,9 |
| | 432 | 216 | 106 | 110 | 34 | 38 | 10 | | 14 | 4 | 24 | 24Ne | 3,38 min | 0 | | 23,993 610 65(55) | 431,9 |
| | 450 | 225 | 110 | 115 | 35 | 40 | 10 | | 15 | 5 | 25 | 25Ne | 602 ms | 3/2+ | | 24,997 789(48) | 450,0 |
| | 468 | 234 | 114 | 120 | 36 | 42 | 10 | | 16 | 6 | 26 | 26Ne | 197 ms | 0 | | 26,000 515(20) | 468,0 |
| | 486 | 243 | 118 | 125 | 37 | 44 | 10 | | 17 | 7 | 27 | 27Ne | 32 ms | 3/2+ | | 27,007 553(70) | 486,1 |
| | 504 | 252 | 122 | 130 | 38 | 46 | 10 | | 18 | 8 | 28 | 28Ne | 17 ms | 0 | | 28,012 12(10) | 504,2 |
| | 522 | 261 | 126 | 135 | 39 | 48 | 10 | | 19 | 9 | 29 | 29Ne | 14,8 ms | 3/2+ | | 29,019 75(11) | 522,4 |
| | 540 | 270 | 130 | 140 | 40 | 50 | 10 | | 20 | 10 | 30 | 30Ne | 7,3 ms | 0 | | 30,024 73(30) | 540,4 |
| | 558 | 279 | 134 | 145 | 41 | 52 | 10 | | 21 | 11 | 31 | 31Ne | 3,4 ms | | | 31,0331(17) | 558,6 |
| | 576 | 288 | 138 | 150 | 42 | 54 | 10 | | 22 | 12 | 32 | 32Ne | 3,5 ms | 0 | | 32,039 72(54#) | 576,7 |
| | 594 | 297 | 142 | 155 | 43 | 56 | 10 | | 23 | 13 | 33 | 33Ne | 180 ns | 7/2− | | 33,049 38(64#) | 594,9 |
| | 612 | 306 | 146 | 160 | 44 | 58 | 10 | | 24 | 14 | 34 | 34Ne | 60 ns | 0 | | 34,056 73(55#) | 613,0 |
| | 324 | 162 | 83 | 79 | 29 | 25 | 11 | Natrium | 7 | -4 | 18 | 18Na | 1,3·10e−21 s | 1− | | 18,026 88(12) | 324,5 |
| | 342 | 171 | 87 | 84 | 30 | 27 | 11 | | 8 | -3 | 19 | 19Na | < 40 ns | 5/2+ | | 19,013 880(11) | 342,2 |
| | 360 | 180 | 91 | 89 | 31 | 29 | 11 | | 9 | -2 | 20 | 20Na | 447,9 ms | 2+ | | 20,007 3544(12) | 360,1 |
| | 378 | 189 | 95 | 94 | 32 | 31 | 11 | | 10 | -1 | 21 | 21Na | 22,49 s | 3/2+ | | 20,997 654 69(30) | 378,0 |
| | 396 | 198 | 99 | 99 | 33 | 33 | 11 | | 11 | 0 | 22 | 22Na | 2,6027 a | 3+ | | 21,994 437 41(18) | 395,9 |
| | 396 | 198 | 99 | 99 | 33 | 33 | 11 | | 11 | 0 | 22 | 22m1Na | 244 ns | 1+ | | 21,995 062 77 | 395,9 |
| -4 | 414 | 207 | 103 | 104 | 34 | 35 | 11 | | 12 | 1 | 23 | 23Na | stabil | 3/2+ | 100 | 22,989 769 2820(19) | 413,8 |
| | 432 | 216 | 107 | 109 | 35 | 37 | 11 | | 13 | 2 | 24 | 24Na | 14,997 h | 4+ | | 23,990 962 950(38) | 431,8 |
| | 432 | 216 | 107 | 109 | 35 | 37 | 11 | | 13 | 2 | 24 | 24m1Na | 20,18 ms | 1+ | | 23,991 469 83 | 431,8 |
| | 450 | 225 | 111 | 114 | 36 | 39 | 11 | | 14 | 3 | 25 | 25Na | 59,1 s | 5/2+ | | 24,989 9540(13) | 449,8 |
| | 468 | 234 | 115 | 119 | 37 | 41 | 11 | | 15 | 4 | 26 | 26Na | 1,07128 s | 3+ | | 25,992 6346(38) | 467,9 |
| | 486 | 243 | 119 | 124 | 38 | 43 | 11 | | 16 | 5 | 27 | 27Na | 301 ms | 5/2+ | | 26,994 0765(40) | 485,9 |
| | 504 | 252 | 123 | 129 | 39 | 45 | 11 | | 17 | 6 | 28 | 28Na | 30,5 ms | 1+ | | 27,998 939(11) | 504,0 |
| | 522 | 261 | 127 | 134 | 40 | 47 | 11 | | 18 | 7 | 29 | 29Na | 44,9 ms | 3/2+ | | 29,002 8771(79) | 522,1 |
| | 540 | 270 | 131 | 139 | 41 | 49 | 11 | | 19 | 8 | 30 | 30Na | 48 ms | 2+ | | 30,009 0979(51) | 540,2 |
| | 558 | 279 | 135 | 144 | 42 | 51 | 11 | | 20 | 9 | 31 | 31Na | 17 ms | 3/2+ | | 31,013 163(25) | 558,2 |
| | 576 | 288 | 139 | 149 | 43 | 53 | 11 | | 21 | 10 | 32 | 32Na | 13,2 ms | 3− | | 32,020 19(13) | 576,4 |
| | 594 | 297 | 143 | 154 | 44 | 55 | 11 | | 22 | 11 | 33 | 33Na | 8 ms | 3/2+ | | 33,025 73(64#) | 594,5 |
| | 612 | 306 | 147 | 159 | 45 | 57 | 11 | | 23 | 12 | 34 | 34Na | 5,5 ms | | | 34,033 59(54#) | 612,6 |
| | 630 | 315 | 151 | 164 | 46 | 59 | 11 | | 24 | 13 | 35 | 35Na | 1,5 ms | | | 35,040 62(63#) | 630,7 |
| | 648 | 324 | 155 | 169 | 47 | 61 | 11 | | 25 | 14 | 36 | 36Na | < 180 ns | 1+ | | 36,049 29(64#) | 648,9 |
| | 666 | 333 | 159 | 174 | 48 | 63 | 11 | | 26 | 15 | 37 | 37Na | > 60 ns | 3/2+ | | 37,057 05(65#) | 667,0 |
| | 702 | 351 | 167 | 184 | 50 | 67 | 11 | | 28 | 17 | 39 | 39Na | 1 ms | 3/2+ | | 39,07512(80) | 703,4 |
| | 342 | 171 | 88 | 83 | 31 | 26 | 12 | Magnesium | 7 | -5 | 19 | 19Mg | 4 ps | 1/2− | | 19,034 169(54) | 342,6 |
| | 360 | 180 | 92 | 88 | 32 | 28 | 12 | | 8 | -4 | 20 | 20Mg | 90,8 ms | 0+ | | 20,018 850(29) | 360,3 |
| | 378 | 189 | 96 | 93 | 33 | 30 | 12 | | 9 | -3 | 21 | 21Mg | 122 ms | 5/2+ | | 21,011 716(18) | 378,2 |
| | 396 | 198 | 100 | 98 | 34 | 32 | 12 | | 10 | -2 | 22 | 22Mg | 3,8755 s | 0+ | | 21,999 570 65(34) | 396,0 |
| | 414 | 207 | 104 | 103 | 35 | 34 | 12 | | 11 | -1 | 23 | 23Mg | 11,317 s | 5/2+ | | 22,994 124 21(74) | 413,9 |
| | 414 | 207 | 104 | 103 | 35 | 34 | 12 | | 11 | -1 | 23 | 23m1Mg | 15·10e−15 s | 3/2+ | | 23,004 426 22 | 414,1 |

| | | | | | |
|---|---|---|---|---|---|
| 12 | Magnesium | Mg | 432 | Tetraeder B | 4 [3 (3Mg12)] |
| 13 | Aluminium | Al | 486 | Würfel B | 6 [Al.9'+8Al.9] |
| 14 | Silicium | Si | 520 | Oktaeder B | 8 [B5+4Si15] |
| 15 | Phosphor | P | 558 | Würfel B | 6 [(B5+3N6+3P9)+(Li4+3Be4+3P9)] |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 432 | 216 | 108 | 108 | 36 | 36 | 12 | | 12 | 0 | 24 | 24Mg | stabil | 0+ | 78,99 | 23,985 041 697(14) | 431,7 |
| | 450 | 225 | 112 | 113 | 37 | 38 | 12 | | 13 | 1 | 25 | 25Mg | stabil | 5/2+ | 10 | 24,985 836 976(50) | 449,7 |
| | 468 | 234 | 116 | 118 | 38 | 40 | 12 | | 14 | 2 | 26 | 26Mg | stabil | 0+ | 11,01 | 25,982 592 968(31) | 467,7 |
| | 486 | 243 | 120 | 123 | 39 | 42 | 12 | | 15 | 3 | 27 | 27Mg | 9,458 min | 1/2+ | | 26,984 340 624(53) | 485,7 |
| | 504 | 252 | 124 | 128 | 40 | 44 | 12 | | 16 | 4 | 28 | 28Mg | 20,915 h | 0+ | | 27,983 8767(22) | 503,7 |
| | 522 | 261 | 128 | 133 | 41 | 46 | 12 | | 17 | 5 | 29 | 29Mg | 1,3 s | 3/2+ | | 28,988 617(12) | 521,8 |
| | 540 | 270 | 132 | 138 | 42 | 48 | 12 | | 18 | 6 | 30 | 30Mg | 335 ms | 0+ | | 29,990 4629(37) | 539,8 |
| | 558 | 279 | 136 | 143 | 43 | 50 | 12 | | 19 | 7 | 31 | 31Mg | 232 ms | 1/2+ | | 30,996 6480(33) | 557,9 |
| | 576 | 288 | 140 | 148 | 44 | 52 | 12 | | 20 | 8 | 32 | 32Mg | 86 ms | 0+ | | 31,999 1102(34) | 576,0 |
| | 594 | 297 | 144 | 153 | 45 | 54 | 12 | | 21 | 9 | 33 | 33Mg | 90,5 ms | 3/2+ | | 33,005 3271(31) | 594,1 |
| | 612 | 306 | 148 | 158 | 46 | 56 | 12 | | 22 | 10 | 34 | 34Mg | 20 ms | 0+ | | 34,008 935(31) | 612,2 |
| | 630 | 315 | 152 | 163 | 47 | 58 | 12 | | 23 | 11 | 35 | 35Mg | 70 ms | 7/2− | | 35,016 79(19) | 630,3 |
| | 648 | 324 | 156 | 168 | 48 | 60 | 12 | | 24 | 12 | 36 | 36Mg | 3,9 ms | 0+ | | 36,021 88(49) | 648,4 |
| | 666 | 333 | 160 | 173 | 49 | 62 | 12 | | 25 | 13 | 37 | 37Mg | 40 ms | 7/2− | | 37,030 37(54#) | 666,5 |
| | 684 | 342 | 164 | 178 | 50 | 64 | 12 | | 26 | 14 | 38 | 38Mg | 1 ms | 0+ | | 38,036 58(54#) | 684,7 |
| | 702 | 351 | 168 | 183 | 51 | 66 | 12 | | 27 | 15 | 39 | 39Mg | < 180 ns | 7/2− | | 39,045 38(55#) | 702,8 |
| | 720 | 360 | 172 | 188 | 52 | 68 | 12 | | 28 | 16 | 40 | 40Mg | 1 ms | 0+ | | 40,052 18(64#) | 720,9 |
| | 378 | 189 | 97 | 92 | 34 | 29 | 13 | Aluminium | 8 | -5 | 21 | 21Al | 100 ps | 5/2+ | | 21,028 97(43#) | 378,5 |
| | 396 | 198 | 101 | 97 | 35 | 31 | 13 | | 9 | -4 | 22 | 22Al | 91,1 ms | 3+ | | 22,019 54(43#) | 396,4 |
| | 414 | 207 | 105 | 102 | 36 | 33 | 13 | | 10 | -3 | 23 | 23Al | 446 ms | 5/2+ | | 23,007 244 35(37) | 414,1 |
| | 414 | 207 | 105 | 102 | 36 | 33 | 13 | | 10 | -3 | 23 | 23m1Al | 6,2·10e−18 s | 1/2+ | | 23, 007 857 27 | 414,1 |
| | 432 | 216 | 109 | 107 | 37 | 35 | 13 | | 11 | -2 | 24 | 24Al | 2,053 s | 4+ | | 23,999 9489(12) | 432,0 |
| | 432 | 216 | 109 | 107 | 37 | 35 | 13 | | 11 | -2 | 24 | 24m1Al | 130 ms | 1+ | | 24,000 397 | 432,0 |
| | 450 | 225 | 113 | 112 | 38 | 37 | 13 | | 12 | -1 | 25 | 25Al | 7,183 s | 5/2+ | | 24,990 428 10(51) | 449,8 |
| | 468 | 234 | 117 | 117 | 39 | 39 | 13 | | 13 | 0 | 26 | 26Al | 7,17·10e5 a | 5+ | | 25,986 891 904(69) | 467,8 |
| | 468 | 234 | 117 | 117 | 39 | 39 | 13 | | 13 | 0 | 26 | 26m1Al | 6,3464 s | 0+ | | 25,987 136 79 | 467,8 |
| 0 | 486 | 243 | 121 | 122 | 40 | 41 | 13 | | 14 | 1 | 27 | 27Al | stabil | 5/2+ | 100 | 26,981 538 53(11) | 485,7 |
| | 504 | 252 | 125 | 127 | 41 | 43 | 13 | | 15 | 2 | 28 | 28Al | 2,2414 min | 3+ | | 27,981 910 21(13) | 503,7 |
| | 522 | 261 | 129 | 132 | 42 | 45 | 13 | | 16 | 3 | 29 | 29Al | 6,56 min | 5/2+ | | 28,980 4565(10) | 521,6 |
| | 540 | 270 | 133 | 137 | 43 | 47 | 13 | | 17 | 4 | 30 | 30Al | 3,62 s | 3+ | | 29,982 960(15) | 539,7 |
| | 558 | 279 | 137 | 142 | 44 | 49 | 13 | | 18 | 5 | 31 | 31Al | 644 ms | 5/2+ | | 30,983 945(22) | 557,7 |
| | 576 | 288 | 141 | 147 | 45 | 51 | 13 | | 19 | 6 | 32 | 32Al | 33 ms | 1+ | | 31,988 085(13) | 575,8 |
| | 576 | 288 | 141 | 147 | 45 | 51 | 13 | | 19 | 6 | 32 | 32m1Al | 200 ns | 4+ | | 31,989 152 48 | 575,8 |
| | 594 | 297 | 145 | 152 | 46 | 53 | 13 | | 20 | 7 | 33 | 33Al | 41,7 ms | 5/2+ | | 32,990 909(81) | 593,8 |
| | 612 | 306 | 149 | 157 | 47 | 55 | 13 | | 21 | 8 | 34 | 34Al | 42 ms | 4− | | 33,996 705(74) | 611,9 |
| | 630 | 315 | 153 | 162 | 48 | 57 | 13 | | 22 | 9 | 35 | 35Al | 37,2 ms | 5/2+ | | 34,999 764(75) | 630,0 |
| | 648 | 324 | 157 | 167 | 49 | 59 | 13 | | 23 | 10 | 36 | 36Al | 90 ms | | | 36,006 39(11) | 648,1 |
| | 666 | 333 | 161 | 172 | 50 | 61 | 13 | | 24 | 11 | 37 | 37Al | 10,7 ms | | | 37,010 53(13) | 666,2 |
| | 684 | 342 | 165 | 177 | 51 | 63 | 13 | | 25 | 12 | 38 | 38Al | 7,6 ms | | | 38,017 40(27) | 684,3 |
| | 702 | 351 | 169 | 182 | 52 | 65 | 13 | | 26 | 13 | 39 | 39Al | 7,6 ms | | | 39,022 54(54#) | 702,4 |
| | 720 | 360 | 173 | 187 | 53 | 67 | 13 | | 27 | 14 | 40 | 40Al | > 260 ns | | | 40,030 03(54#) | 720,5 |
| | 738 | 369 | 177 | 192 | 54 | 69 | 13 | | 28 | 15 | 41 | 41Al | > 260 ns | | | 41,036 38(64#) | 738,7 |
| | 756 | 378 | 181 | 197 | 55 | 71 | 13 | | 29 | 16 | 42 | 42Al | > 170 ns | | | 42,043 84(64#) | 756,8 |
| | 774 | 387 | 185 | 202 | 56 | 73 | 13 | | 30 | 17 | 43 | 43Al | > 170 ns | | | 43,051 47(75#) | 774,9 |
| | 396 | 198 | 102 | 96 | 36 | 30 | 14 | Silicium | 8 | -6 | 22 | 22Si | 29 ms | 0+ | | 22,035 79(54#) | 396,6 |
| | 414 | 207 | 106 | 101 | 37 | 32 | 14 | | 9 | -5 | 23 | 23Si | 42,3 ms | 5/2+ | | 23,025 44(54#) | 414,5 |
| | 432 | 216 | 110 | 106 | 38 | 34 | 14 | | 10 | -4 | 24 | 24Si | 140,5 ms | 0+ | | 24,011 535(21) | 432,2 |
| | 450 | 225 | 114 | 111 | 39 | 36 | 14 | | 11 | -3 | 25 | 25Si | 220 ms | 5/2+ | | 25,004 109(11) | 450,1 |
| | 468 | 234 | 118 | 116 | 40 | 38 | 14 | | 12 | -2 | 26 | 26Si | 2,229 s | 0+ | | 25,992 333 84(11) | 467,9 |
| | 486 | 243 | 122 | 121 | 41 | 40 | 14 | | 13 | -1 | 27 | 27Si | 4,15 s | 5/2+ | | 26,986 704 81(15) | 485,8 |
| | 504 | 252 | 126 | 126 | 42 | 42 | 14 | | 14 | 0 | 28 | 28Si | stabil | 0+ | 92,223 | 27,976 926 534 65(44) | 503,6 |
| 2 | 522 | 261 | 130 | 131 | 43 | 44 | 14 | | 15 | 1 | 29 | 29Si | stabil | 1/2+ | 4,685 | 28,976 494 664 90(52) | 521,6 |
| | 540 | 270 | 134 | 136 | 44 | 46 | 14 | | 16 | 2 | 30 | 30Si | stabil | 0+ | 3,092 | 29,973 770 136(23) | 539,5 |
| | 558 | 279 | 138 | 141 | 45 | 48 | 14 | | 17 | 3 | 31 | 31Si | 157,3 min | 3/2+ | | 30,975 363 194(46) | 557,6 |
| | 576 | 288 | 142 | 146 | 46 | 50 | 14 | | 18 | 4 | 32 | 32Si | 153 a | 0+ | | 31,974 151 54(32) | 575,5 |
| | 594 | 297 | 146 | 151 | 47 | 52 | 14 | | 19 | 5 | 33 | 33Si | 6,11 s | 3/2+ | | 32,977 976 96(75) | 593,6 |
| | 612 | 306 | 150 | 156 | 48 | 54 | 14 | | 20 | 6 | 34 | 34Si | 2,77 s | 0+ | | 33,978 576(15) | 611,6 |
| | 630 | 315 | 154 | 161 | 49 | 56 | 14 | | 21 | 7 | 35 | 35Si | 0,78 s | 7/2− | | 34,984 583(41) | 629,7 |
| | 648 | 324 | 158 | 166 | 50 | 58 | 14 | | 22 | 8 | 36 | 36Si | 0,45 s | 0+ | | 35,986 695(77) | 647,8 |
| | 666 | 333 | 162 | 171 | 51 | 60 | 14 | | 23 | 9 | 37 | 37Si | 90 ms | 7/2− | | 36,992 921(89) | 665,9 |
| | 684 | 342 | 166 | 176 | 52 | 62 | 14 | | 24 | 10 | 38 | 38Si | > 1 µs | 0+ | | 37,995 523(75) | 683,9 |
| | 702 | 351 | 170 | 181 | 53 | 64 | 14 | | 25 | 11 | 39 | 39Si | 47,5 ms | 5/2− | | 39,002 491(97) | 702,0 |
| | 720 | 360 | 174 | 186 | 54 | 66 | 14 | | 26 | 12 | 40 | 40Si | 33 ms | 0+ | | 40,005 83(25) | 720,1 |
| | 738 | 369 | 178 | 191 | 55 | 68 | 14 | | 27 | 13 | 41 | 41Si | 20 ms | | | 41,013 01(40) | 738,2 |
| | 756 | 378 | 182 | 196 | 56 | 70 | 14 | | 28 | 14 | 42 | 42Si | 12,5 ms | 0+ | | 42,017 78(54#) | 756,3 |
| | 774 | 387 | 186 | 201 | 57 | 72 | 14 | | 29 | 15 | 43 | 43Si | > 60 ns | | | 43,024 80(64#) | 774,4 |
| | 792 | 396 | 190 | 206 | 58 | 74 | 14 | | 30 | 16 | 44 | 44Si | > 360 ns | 0+ | | 44,030 61(64#) | 792,6 |
| | 810 | 405 | 194 | 211 | 59 | 76 | 14 | | 31 | 17 | 45 | 45Si | | | | 45,039 95(75#) | 810,7 |
| | 432 | 216 | 111 | 105 | 39 | 33 | 15 | Phosphor | 9 | -6 | 24 | 24P | | 1+ | | 24,035 77(54#) | 432,6 |
| | 450 | 225 | 115 | 110 | 40 | 35 | 15 | | 10 | -5 | 25 | 25P | < 30 ns | 1/2+ | | 25,021 19(43#) | 450,4 |
| | 468 | 234 | 119 | 115 | 41 | 37 | 15 | | 11 | -4 | 26 | 26P | 43,7 ms | 3+ | | 26,011 78(21#) | 468,2 |
| | 486 | 243 | 123 | 120 | 42 | 39 | 15 | | 12 | -3 | 27 | 27P | 260 ms | 1/2+ | | 26,999 224(28) | 486,0 |
| | 504 | 252 | 127 | 125 | 43 | 41 | 15 | | 13 | -2 | 28 | 28P | 270,3 ms | 3+ | | 27,992 3266(12) | 503,9 |
| | 522 | 261 | 131 | 130 | 44 | 43 | 15 | | 14 | -1 | 29 | 29P | 4,142 s | 1/2+ | | 28,981 800 79(60) | 521,7 |
| | 540 | 270 | 135 | 135 | 45 | 45 | 15 | | 15 | 0 | 30 | 30P | 2,498 min | 1+ | | 29,978 313 75(34) | 539,6 |
| 0 | 558 | 279 | 139 | 140 | 46 | 47 | 15 | | 16 | 1 | 31 | 31P | stabil | 1/2+ | 100 | 30,973 761 998 42(70) | 557,5 |
| | 576 | 288 | 143 | 145 | 47 | 49 | 15 | | 17 | 2 | 32 | 32P | 14,262 d | 1+ | | 31,973 907 643(42) | 575,5 |
| | 594 | 297 | 147 | 150 | 48 | 51 | 15 | | 18 | 3 | 33 | 33P | 25,35 d | 1/2+ | | 32,971 7257(12) | 593,5 |
| | 612 | 306 | 151 | 155 | 49 | 53 | 15 | | 19 | 4 | 34 | 34P | 12,43 s | 1+ | | 33,973 645 89(87) | 611,5 |
| | 630 | 315 | 155 | 160 | 50 | 55 | 15 | | 20 | 5 | 35 | 35P | 47,3 s | 1/2+ | | 34,973 3141(20) | 629,5 |
| | 648 | 324 | 159 | 165 | 51 | 57 | 15 | | 21 | 6 | 36 | 36P | 5,6 s | 4− | | 35,978 260(14) | 647,6 |
| | 666 | 333 | 163 | 170 | 52 | 59 | 15 | | 22 | 7 | 37 | 37P | 2,31 s | 1/2+ | | 36,979 607(41) | 665,6 |
| | 684 | 342 | 167 | 175 | 53 | 61 | 15 | | 23 | 8 | 38 | 38P | 0,64 s | 4− | | 37,984 252(93) | 683,7 |
| | 702 | 351 | 171 | 180 | 54 | 63 | 15 | | 24 | 9 | 39 | 39P | 0,28 s | 1/2+ | | 38,986 227(98) | 701,8 |
| | 720 | 360 | 175 | 185 | 55 | 65 | 15 | | 25 | 10 | 40 | 40P | 125 ms | 2− | | 39,991 33(12) | 719,8 |
| | 738 | 369 | 179 | 190 | 56 | 67 | 15 | | 26 | 11 | 41 | 41P | 100 ms | 1/2+ | | 40,994 654(86) | 737,9 |
| | 756 | 378 | 183 | 195 | 57 | 69 | 15 | | 27 | 12 | 42 | 42P | 48,5 ms | | | 42,001 08(23) | 756,0 |
| | 774 | 387 | 187 | 200 | 58 | 71 | 15 | | 28 | 13 | 43 | 43P | 36,5 ms | 1/2+ | | 43,005 02(40) | 774,1 |
| | 792 | 396 | 191 | 205 | 59 | 73 | 15 | | 29 | 14 | 44 | 44P | 18,5 ms | 3/2− | | 44,011 21(54#) | 792,2 |
| | 810 | 405 | 195 | 210 | 60 | 75 | 15 | | 30 | 15 | 45 | 45P | > 200 ns | | | 45,016 45(64#) | 810,3 |
| | 828 | 414 | 199 | 215 | 61 | 77 | 15 | | 31 | 16 | 46 | 46P | > 200 ns | | | 46,024 46(75#) | 828,4 |
| | 846 | 423 | 203 | 220 | 62 | 79 | 15 | | 32 | 17 | 47 | 47P | | | | 47,031 39(86#) | 846,6 |
| | 468 | 234 | 120 | 114 | 42 | 36 | 16 | Schwefel | 10 | -6 | 26 | 26S | 79 ns | 0+ | | 26,029 07(64#) | 468,5 |
| | 486 | 243 | 124 | 119 | 43 | 38 | 16 | | 11 | -5 | 27 | 27S | 15,5 ms | 5/2+ | | 27,018 28(43#) | 486,3 |
| | 504 | 252 | 128 | 124 | 44 | 40 | 16 | | 12 | -4 | 28 | 28S | 125 ms | 0+ | | 28,004 37(17) | 504,1 |
| | 522 | 261 | 132 | 129 | 45 | 42 | 16 | | 13 | -3 | 29 | 29S | 187 ms | 5/2+ | | 28,996 611(54) | 521,9 |
| | 540 | 270 | 136 | 134 | 46 | 44 | 16 | | 14 | -2 | 30 | 30S | 1,178 s | 0+ | | 29,984 907 03(40) | 539,7 |

| | | |

| | | | | | |
|---|---|---|---|---|---|
| 20 | Calcium | Ca | 720 | Tetraeder A | Ca80+4Ca160 oder Ca80+4[Ca45+Ca70+Ca45] |
| 21 | Scandium | Sc | 792 | Würfel A | (4B5+Be4)+3 [N110+4 (2H3)+Ad6]+3 [N63+2N24+B5] |
| 21 | Scandium | Sc | 792 | Würfel A | (4B5+Be4)+3 [N110+4 (2H3)+Ad6]+3 [N63+2N24+B5] |
| 21 | Scandium | Sc | 792 | Würfel A | (4B5+Be4)+3 [N110+4 (2H3)+Ad6]+3 [N63+2N24+B5] |
| 22 | Titan | Ti | 864 | Oktaeder A | (Ne120+8)+12Ti14+4 (Ti88+C27+C26+1) |

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1008 | 504 | 243 | 261 | 75 | 93 | 19 | | | 37 | 18 | 56 | 56K | > 620 ns | | | 56,008 51(86#) | 1008,2 |
| | 612 | 306 | 156 | 150 | 54 | 48 | 20 | Calcium | | 14 | -6 | 34 | 34Ca | < 35 ns | 0+ | | 34,014 87(32#) | 612,3 |
| | 630 | 315 | 160 | 155 | 55 | 50 | 20 | | | 15 | -5 | 35 | 35Ca | 25,7 ms | 3/2+ | | 35,005 14(21#) | 630,1 |
| | 648 | 324 | 164 | 160 | 56 | 52 | 20 | | | 16 | -4 | 36 | 36Ca | 102 ms | 0+ | | 35,993 074(43) | 647,9 |
| | 666 | 333 | 168 | 165 | 57 | 54 | 20 | | | 17 | -3 | 37 | 37Ca | 181,1 ms | 3/2+ | | 36,985 897 85(68) | 665,7 |
| | 684 | 342 | 172 | 170 | 58 | 56 | 20 | | | 18 | -2 | 38 | 38Ca | 440 ms | 0+ | | 37,976 319 22(21) | 683,6 |
| | 702 | 351 | 176 | 175 | 59 | 58 | 20 | | | 19 | -1 | 39 | 39Ca | 859,6 ms | 3/2+ | | 38,970 710 81(64) | 701,5 |
| 0 | 720 | 360 | 180 | 180 | 60 | 60 | 20 | | | 20 | 0 | 40 | 40Ca | stabil 2ε | 0+ | 96,941 | 39,962 590 863(22) | 719,3 |
| | 738 | 369 | 184 | 185 | 61 | 62 | 20 | | | 21 | 1 | 41 | 41Ca | 1,02·10e5 a | 7/2− | | 40,962 277 92(15) | 737,3 |
| | 756 | 378 | 188 | 190 | 62 | 64 | 20 | | | 22 | 2 | 42 | 42Ca | stabil | 0+ | 0,647 | 41,958 617 83(16) | 755,3 |
| | 774 | 387 | 192 | 195 | 63 | 66 | 20 | | | 23 | 3 | 43 | 43Ca | stabil | 7/2− | 0,135 | 42,958 766 44(24) | 773,3 |
| | 792 | 396 | 196 | 200 | 64 | 68 | 20 | | | 24 | 4 | 44 | 44Ca | stabil | 0+ | 2,086 | 43,955 481 56(35) | 791,2 |
| | 810 | 405 | 200 | 205 | 65 | 70 | 20 | | | 25 | 5 | 45 | 45Ca | 162,61 d | 7/2− | | 44,956 186 35(39) | 809,2 |
| | 828 | 414 | 204 | 210 | 66 | 72 | 20 | | | 26 | 6 | 46 | 46Ca | stabil 2β | 0+ | 0,004 | 45,953 6890(24) | 827,2 |
| | 846 | 423 | 208 | 215 | 67 | 74 | 20 | | | 27 | 7 | 47 | 47Ca | 4,536 d | 7/2− | | 46,954 5424(24) | 845,2 |
| | 864 | 432 | 212 | 220 | 68 | 76 | 20 | | | 28 | 8 | 48 | 48Ca | > 6,4·10e19 a | 0+ | 0,187 | 47,952 522 76(13) | 863,1 |
| | 882 | 441 | 216 | 225 | 69 | 78 | 20 | | | 29 | 9 | 49 | 49Ca | 8,718 min | 3/2− | | 48,955 662 74(23) | 881,2 |
| | 900 | 450 | 220 | 230 | 70 | 80 | 20 | | | 30 | 10 | 50 | 50Ca | 13,9 s | 0+ | | 49,957 4992(17) | 899,2 |
| | 918 | 459 | 224 | 235 | 71 | 82 | 20 | | | 31 | 11 | 51 | 51Ca | 10 s | 3/2− | | 50,960 989(24) | 917,3 |
| | 936 | 468 | 228 | 240 | 72 | 84 | 20 | | | 32 | 12 | 52 | 52Ca | 4,6 s | 0+ | | 51,963 217(64) | 935,3 |
| | 954 | 477 | 232 | 245 | 73 | 86 | 20 | | | 33 | 13 | 53 | 53Ca | 90 ms | 3/2− | | 52,969 45(43#) | 953,5 |
| | 972 | 486 | 236 | 250 | 74 | 88 | 20 | | | 34 | 14 | 54 | 54Ca | 86 ms | 0+ | | 53,973 40(54#) | 971,5 |
| | 990 | 495 | 240 | 255 | 75 | 90 | 20 | | | 35 | 15 | 55 | 55Ca | 22 ms | 5/2− | | 54,980 30(54#) | 989,6 |
| | 1008 | 504 | 244 | 260 | 76 | 92 | 20 | | | 36 | 16 | 56 | 56Ca | 11 ms | 0+ | | 55,985 08(64#) | 1007,7 |
| | 1026 | 513 | 248 | 265 | 77 | 94 | 20 | | | 37 | 17 | 57 | 57Ca | 5 ms | | | 56,992 62(64#) | 1025,9 |
| | 1044 | 522 | 252 | 270 | 78 | 96 | 20 | | | 38 | 18 | 58 | 58Ca | > 620 ns | 0+ | | 57,997 94(75#) | 1044,0 |
| | 648 | 324 | 165 | 159 | 57 | 51 | 21 | Scandium | | 15 | -6 | 36 | 36Sc | | | | 36,016 48(32#) | 648,3 |
| | 666 | 333 | 169 | 164 | 58 | 53 | 21 | | | 16 | -5 | 37 | 37Sc | | | | 37,003 74(32#) | 666,1 |
| | 684 | 342 | 173 | 169 | 59 | 55 | 21 | | | 17 | -4 | 38 | 38Sc | | | | 37,995 12(21#) | 683,9 |
| | 702 | 351 | 177 | 174 | 60 | 57 | 21 | | | 18 | -3 | 39 | 39Sc | < 300 ns | 7/2− | | 38,984 785(26) | 701,7 |
| | 720 | 360 | 181 | 179 | 61 | 59 | 21 | | | 19 | -2 | 40 | 40Sc | 182,3 ms | 4− | | 39,977 9673(30) | 719,6 |
| | 738 | 369 | 185 | 184 | 62 | 61 | 21 | | | 20 | -1 | 41 | 41Sc | 596,3 ms | 7/2− | | 40,969 251 105(88) | 737,4 |
| | 756 | 378 | 189 | 189 | 63 | 63 | 21 | | | 21 | 0 | 42 | 42Sc | 681,3 ms | 0+ | | 41,965 516 53(18) | 755,4 |
| | 756 | 378 | 189 | 189 | 63 | 63 | 21 | | | 21 | 0 | 42 | 42m1Sc | 61,7 s | 7+ | | 41,966 178 31 | 755,4 |
| | 774 | 387 | 193 | 194 | 64 | 65 | 21 | | | 22 | 1 | 43 | 43Sc | 3,891 h | 7/2− | | 42,961 1505(20) | 773,3 |
| | 774 | 387 | 193 | 194 | 64 | 65 | 21 | | | 22 | 1 | 43 | 43m1Sc | 438 µs | 2/3+ | | 42,961 313 22 | 773,3 |
| -18 | 774 | 387 | 193 | 194 | 64 | 65 | 21 | | 2 | 22 | 1 | 43 | 43m2Sc | 470 ns | 19/2− | | 42,964 503 58 | 773,4 |
| | 792 | 396 | 197 | 199 | 65 | 67 | 21 | | | 23 | 2 | 44 | 44Sc | 3,97 h | 2+ | | 43,959 4029(19) | 791,3 |
| | 792 | 396 | 197 | 199 | 65 | 67 | 21 | | | 23 | 2 | 44 | 44m1Sc | 58,61 h | 6+ | | 43,959 693 68 | 791,3 |
| | 792 | 396 | 197 | 199 | 65 | 67 | 21 | | | 23 | 2 | 44 | 44m2Sc | 154 ns | 1− | | 43,959 475 75 | 791,3 |
| 0 | 792 | 396 | 197 | 199 | 65 | 67 | 21 | | | 23 | 2 | 44 | 44m3Sc | 50,4 µs | 0 | | 43,959 559 81 | 791,3 |
| 18 | 810 | 405 | 201 | 204 | 66 | 69 | 21 | | 1 | 24 | 3 | 45 | 45Sc | stabil | 7/2− | 100 | 44,955 908 28(77) | 809,2 |
| | 810 | 405 | 201 | 204 | 66 | 69 | 21 | | | 24 | 3 | 45 | 45m1Sc | 318 ms | 3/2+ | | 44,955 926 07 | 809,2 |
| | 828 | 414 | 205 | 209 | 67 | 71 | 21 | | | 25 | 4 | 46 | 46Sc | 83,79 d | 4+ | | 45,955 168 26(78) | 827,2 |
| | 828 | 414 | 205 | 209 | 67 | 71 | 21 | | | 25 | 4 | 46 | 46m1Sc | 18,75 s | 1− | | 45,955 324 89 | 827,2 |
| | 828 | 414 | 205 | 209 | 67 | 71 | 21 | | | 25 | 4 | 46 | 46m2Sc | 9,4 µs | 6+ | | 45,955 227 73 | 827,2 |
| | 846 | 423 | 209 | 214 | 68 | 73 | 21 | | | 26 | 5 | 47 | 47Sc | 3,3492 d | 7/2− | | 46,952 4037(21) | 845,1 |
| | 846 | 423 | 209 | 214 | 68 | 73 | 21 | | | 26 | 5 | 47 | 47m1Sc | 27,2 ns | 3/2+ | | 46,953 230 83 | 845,2 |
| | 864 | 432 | 213 | 219 | 69 | 75 | 21 | | | 27 | 6 | 48 | 48Sc | 43,67 h | 6+ | | 47,952 2236(53) | 863,1 |
| | 882 | 441 | 217 | 224 | 70 | 77 | 21 | | | 28 | 7 | 49 | 49Sc | 57,18 min | 7/2− | | 48,950 0146(29) | 881,1 |
| | 900 | 450 | 221 | 229 | 71 | 79 | 21 | | | 29 | 8 | 50 | 50Sc | 102,5 s | 5+ | | 49,952 176(16) | 899,1 |
| | 900 | 450 | 221 | 229 | 71 | 79 | 21 | | | 29 | 8 | 50 | 50m1Sc | 0,35 s | 3+ | | 49,952 463 57 | 899,1 |
| | 918 | 459 | 225 | 234 | 72 | 81 | 21 | | | 30 | 9 | 51 | 51Sc | 12,4 s | 7/2− | | 50,953 592(21) | 917,2 |
| | 936 | 468 | 229 | 239 | 73 | 83 | 21 | | | 31 | 10 | 52 | 52Sc | 8,2 s | 3+ | | 51,956 88(15) | 935,2 |
| | 954 | 477 | 233 | 244 | 74 | 85 | 21 | | | 32 | 11 | 53 | 53Sc | 2,4 s | 7/2− | | 52,959 09(29) | 953,3 |
| | 972 | 486 | 237 | 249 | 75 | 87 | 21 | | | 33 | 12 | 54 | 54Sc | 526 ms | 4+ | | 53,963 264 16 | 971,3 |
| | 972 | 486 | 237 | 249 | 75 | 87 | 21 | | | 33 | 12 | 54 | 54m1Sc | 7 µs | 5+ | | 53,963 3827 | 971,3 |
| | 990 | 495 | 241 | 254 | 76 | 89 | 21 | | | 34 | 13 | 55 | 55Sc | 96 ms | 7/2− | | 54,967 82(50) | 989,4 |
| | 1008 | 504 | 245 | 259 | 77 | 91 | 21 | | | 35 | 14 | 56 | 56Sc | 26 ms | 7+ | | 55,973 45(43#) | 1007,5 |
| | 1026 | 513 | 249 | 264 | 78 | 93 | 21 | | | 36 | 15 | 57 | 57Sc | 22 ms | 7/2− | | 56,977 77(54#) | 1025,6 |
| | 1044 | 522 | 253 | 269 | 79 | 95 | 21 | | | 37 | 16 | 58 | 58Sc | 12 ms | 3+ | | 57,984 03(64#) | 1043,7 |
| | 1062 | 531 | 257 | 274 | 80 | 97 | 21 | | | 38 | 17 | 59 | 59Sc | 10 ms | | | 58,988 94(64#) | 1061,8 |
| | 1080 | 540 | 261 | 279 | 81 | 99 | 21 | | | 39 | 18 | 60 | 60Sc | 3 ms | | | 59,995 65(75#) | 1079,9 |
| | 1098 | 549 | 265 | 284 | 82 | 101 | 21 | | | 40 | 19 | 61 | 61Sc | > 360 ns | | | 61,001 00(86#) | 1098,0 |
| | 684 | 342 | 174 | 168 | 60 | 54 | 22 | Titan | | 16 | -6 | 38 | 38Ti | 100 ns | 0 | | 38,011 45(32#) | 684,2 |
| | 702 | 351 | 178 | 173 | 61 | 56 | 22 | | | 17 | -5 | 39 | 39Ti | 31 ms | 3/2+ | | 39,002 36(22#) | 702,0 |
| | 720 | 360 | 182 | 178 | 62 | 58 | 22 | | | 18 | -4 | 40 | 40Ti | 52,4 ms | 0+ | | 39,990 50(17) | 719,8 |
| | 738 | 369 | 186 | 183 | 63 | 60 | 22 | | | 19 | -3 | 41 | 41Ti | 80,4 ms | 3/2+ | | 40,983 148(30) | 737,7 |
| | 756 | 378 | 190 | 188 | 64 | 62 | 22 | | | 20 | -2 | 42 | 42Ti | 199 ms | 0+ | | 41,973 049 03(30) | 755,5 |
| | 774 | 387 | 194 | 193 | 65 | 64 | 22 | | | 21 | -1 | 43 | 43Ti | 509 ms | 7/2− | | 42,968 5225(78) | 773,4 |
| | 774 | 387 | 194 | 193 | 65 | 64 | 22 | | | 21 | -1 | 43 | 43m1Ti | 12,6 µs | 3/2+ | | 42,968 858 52 | 773,4 |
| | 774 | 387 | 194 | 193 | 65 | 64 | 22 | | | 21 | -1 | 43 | 43m2Ti | 560 ns | 9/2− | | 42,971 814 42 | 773,5 |
| | 792 | 396 | 198 | 198 | 66 | 66 | 22 | | | 22 | 0 | 44 | 44Ti | 60 a | 0+ | | 43,959 689 95(75) | 791,3 |
| | 810 | 405 | 202 | 203 | 67 | 68 | 22 | | | 23 | 1 | 45 | 45Ti | 184,8 min | 7/2− | | 44,958 121 98(95) | 809,2 |
| | 828 | 414 | 206 | 208 | 68 | 70 | 22 | | | 24 | 2 | 46 | 46Ti | stabil | 0+ | 8,25 | 45,952 627 72(35) | 827,1 |
| | 846 | 423 | 210 | 213 | 69 | 72 | 22 | | | 25 | 3 | 47 | 47Ti | stabil | 5/2− | 7,44 | 46,951 758 79(38) | 845,1 |
| 0 | 864 | 432 | 214 | 218 | 70 | 74 | 22 | | | 26 | 4 | 48 | 48Ti | stabil | 0+ | 73,72 | 47,947 941 98(38) | 863,1 |
| | 882 | 441 | 218 | 223 | 71 | 76 | 22 | | | 27 | 5 | 49 | 49Ti | stabil | 7/2− | 5,41 | 48,947 865 68(39) | 881,1 |
| | 900 | 450 | 222 | 228 | 72 | 78 | 22 | | | 28 | 6 | 50 | 50Ti | stabil | 0+ | 5,18 | 49,944 786 89(39) | 899,0 |
| | 918 | 459 | 226 | 233 | 73 | 80 | 22 | | | 29 | 7 | 51 | 51Ti | 5,76 min | 3/2− | | 50,946 610 65(65) | 917,0 |
| | 936 | 468 | 230 | 238 | 74 | 82 | 22 | | | 30 | 8 | 52 | 52Ti | 1,7 min | 0+ | | 51,946 8930(76) | 935,0 |
| | 954 | 477 | 234 | 243 | 75 | 84 | 22 | | | 31 | 9 | 53 | 53Ti | 32,7 s | 3/2− | | 52,949 73(11) | 953,1 |
| | 972 | 486 | 238 | 248 | 76 | 86 | 22 | | | 32 | 10 | 54 | 54Ti | 1,5 s | 0+ | | 53,951 05(13) | 971,1 |
| | 990 | 495 | 242 | 253 | 77 | 88 | 22 | | | 33 | 11 | 55 | 55Ti | 1,3 s | 3/2− | | 54,955 27(13) | 989,2 |
| | 1008 | 504 | 246 | 258 | 78 | 90 | 22 | | | 34 | 12 | 56 | 56Ti | 0,2 s | 0+ | | 55,957 91(15) | 1007,2 |
| | 1026 | 513 | 250 | 263 | 79 | 92 | 22 | | | 35 | 13 | 57 | 57Ti | 98 ms | 5/2− | | 56,963 64(27) | 1025,3 |
| | 1044 | 522 | 254 | 268 | 80 | 94 | 22 | | | 36 | 14 | 58 | 58Ti | 57 ms | 0+ | | 57,966 60(43#) | 1043,4 |
| | 1062 | 531 | 258 | 273 | 81 | 96 | 22 | | | 37 | 15 | 59 | 59Ti | 27,5 ms | 5/2− | | 58,972 47(43#) | 1061,5 |
| | 1080 | 540 | 262 | 278 | 82 | 98 | 22 | | | 38 | 16 | 60 | 60Ti | 22,4 ms | 0+ | | 59,976 03(54#) | 1079,6 |
| | 1098 | 549 | 266 | 283 | 83 | 100 | 22 | | | 39 | 17 | 61 | 61Ti | 15 ms | 1/2− | | 60,982 45(64#) | 1097,7 |
| | 1116 | 558 | 270 | 288 | 84 | 102 | 22 | | | 40 | 18 | 62 | 62Ti | 10 ms | 0 | | 61,986 51(75#) | 1115,8 |
| | 1134 | 567 | 274 | 293 | 85 | 104 | 22 | | | 41 | 19 | 63 | 63Ti | 3 ms | | | 62,993 75(75#) | 1133,9 |
| | 720 | 360 | 183 | 177 | 63 | 57 | 23 | Vanadium | | 17 | -6 | 40 | 40V | | | | 40,012 76(43#) | 720,2 |
| | 738 | 369 | 187 | 182 | 64 | 59 | 23 | | | 18 | -5 | 41 | 41V | | | | 41,000 21(32#) | 738,0 |
| | 756 | 378 | 191 | 187 | 65 | 61 | 23 | | | 19 | -4 | 42 | 42V | < 55 ns | | | 41,991 82(32#) | 755,9 |
| | 774 | 387 | 195 | 192 | 66 | 63 | 23 | | | 20 | -3 | 43 | 43V | 79,3 ms | 7/2− | | 42,980 766(46) | 773,7 |
| | 792 | 396 | 199 | 197 | 67 | 65 | 23 | | | 21 | -2 | 44 | 44V | 111 ms | 2+ | | 43,974 11(20) | 791,5 |

| | | | | | |
|---|---|---|---|---|---|
| 23 | Vanadium | V | 918 | Würfel A | (L7+4B5)+3 [N110+N20+4(2H3)+Ad6]+3 [N63+2N24+N20+N6] |
| 24 | Chrom | Cr | 936 | Tetraeder A | (8N6+8Ad6)+4 (Ca160+2Cr25) |
| 25 | Mangan | Mn | 992 | Dom | N110+14Li63 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 792 | 396 | 199 | 197 | 67 | 65 | 23 | | 21 | -2 | 44 | 44m1V | 150 ms | 6+ | | 43,973 326 29 | 791,5 |
| | 810 | 405 | 203 | 202 | 68 | 67 | 23 | | 22 | -1 | 45 | 45V | 547 ms | 7/2− | | 44,965 7748(86) | 809,4 |
| | 828 | 414 | 207 | 207 | 69 | 69 | 23 | | 23 | 0 | 46 | 46V | 422,5 ms | 0+ | | 45,960 198 78(36) | 827,3 |
| | 828 | 414 | 207 | 207 | 69 | 69 | 23 | | 23 | 0 | 46 | 46m1V | 1,02 ms | 3+ | | 45,961 060 94 | 827,3 |
| | 846 | 423 | 211 | 212 | 70 | 71 | 23 | | 24 | 1 | 47 | 47V | 32,6 min | 3/2− | | 46,954 904 91(36) | 845,2 |
| | 864 | 432 | 215 | 217 | 71 | 73 | 23 | | 25 | 2 | 48 | 48V | 15,9735 d | 4+ | | 47,952 2522(11) | 863,1 |
| | 882 | 441 | 219 | 222 | 72 | 75 | 23 | | 26 | 3 | 49 | 49V | 330 d | 7/2− | | 48,948 511 80(96) | 881,1 |
| | 900 | 450 | 223 | 227 | 73 | 77 | 23 | | 27 | 4 | 50 | 50V | > 2,7·10e17 a | 6+ | 0,25 | 49,947 156 01(95) | 899,0 |
| 0 | 918 | 459 | 227 | 232 | 74 | 79 | 23 | | 28 | 5 | 51 | 51V | stabil | 7/2− | 99,75 | 50,943 957 04(94) | 917,0 |
| | 936 | 468 | 231 | 237 | 75 | 81 | 23 | | 29 | 6 | 52 | 52V | 3,743 min | 3+ | | 51,944 773 01(95) | 935,0 |
| | 954 | 477 | 235 | 242 | 76 | 83 | 23 | | 30 | 7 | 53 | 53V | 1,543 min | 7/2− | | 52,944 3367(34) | 953,0 |
| | 972 | 486 | 239 | 247 | 77 | 85 | 23 | | 31 | 8 | 54 | 54V | 49,8 s | 3+ | | 53,946 439(16) | 971,0 |
| | 972 | 486 | 239 | 247 | 77 | 85 | 23 | | 31 | 8 | 54 | 54m1V | 900 ns | 5+ | | 53,946 555 75 | 971,0 |
| | 990 | 495 | 243 | 252 | 78 | 87 | 23 | | 32 | 9 | 55 | 55V | 6,54 s | 7/2− | | 54,947 24(10) | 989,1 |
| | 1008 | 504 | 247 | 257 | 79 | 89 | 23 | | 33 | 10 | 56 | 56V | 216 ms | 3+ | | 55,950 48(19) | 1007,1 |
| | 1026 | 513 | 251 | 262 | 80 | 91 | 23 | | 34 | 11 | 57 | 57V | 320 ms | 7/2− | | 56,952 52(24) | 1025,1 |
| | 1044 | 522 | 255 | 267 | 81 | 93 | 23 | | 35 | 12 | 58 | 58V | 191 ms | 3+ | | 57,956 72(14) | 1043,2 |
| | 1062 | 531 | 259 | 272 | 82 | 95 | 23 | | 36 | 13 | 59 | 59V | 97 ms | 7/2− | | 58,959 39(17) | 1061,3 |
| | 1080 | 540 | 263 | 277 | 83 | 97 | 23 | | 37 | 14 | 60 | 60V | 68 ms | 3+ | | 59,964 31(24) | 1079,4 |
| | 1080 | 540 | 263 | 277 | 83 | 97 | 23 | | 37 | 14 | 60 | 60m1V | 40 ms | 1+ | | 59,965 107 34 | 1079,4 |
| | 1098 | 549 | 267 | 282 | 84 | 99 | 23 | | 38 | 15 | 61 | 61V | 52,6 ms | 3/2− | | 60,967 25(96) | 1097,4 |
| | 1116 | 558 | 271 | 287 | 85 | 101 | 23 | | 39 | 16 | 62 | 62V | 33,5 ms | 3+ | | 61,972 65(32#) | 1115,5 |
| | 1134 | 567 | 275 | 292 | 86 | 103 | 23 | | 40 | 17 | 63 | 63V | 19,2 ms | 7/2− | | 62,976 39(43#) | 1133,6 |
| | 1152 | 576 | 279 | 297 | 87 | 105 | 23 | | 41 | 18 | 64 | 64V | 19 ms | | | 63,982 64(43#) | 1151,7 |
| | 1170 | 585 | 283 | 302 | 88 | 107 | 23 | | 42 | 19 | 65 | 65V | 10 ms | | | 64,987 50(54#) | 1169,8 |
| | 1188 | 594 | 287 | 307 | 89 | 109 | 23 | | 43 | 20 | 66 | 66V | > 360 ns | | | 65,993 98(64#) | 1187,9 |
| | 756 | 378 | 192 | 186 | 66 | 60 | 24 | Chrom | 18 | -6 | 42 | 42Cr | 13,3 ms | 0+ | | 42,006 70(43#) | 756,1 |
| | 774 | 387 | 196 | 191 | 67 | 62 | 24 | | 19 | -5 | 43 | 43Cr | 20,6 ms | 3/2+ | | 42,997 53(43#) | 774,0 |
| | 792 | 396 | 200 | 196 | 68 | 64 | 24 | | 20 | -4 | 44 | 44Cr | 42,8 ms | 0+ | | 43,985 36(32#) | 791,7 |
| | 810 | 405 | 204 | 201 | 69 | 66 | 24 | | 21 | -3 | 45 | 45Cr | 60,9 ms | 7/2− | | 44,979 050(38) | 809,6 |
| | 810 | 405 | 204 | 201 | 69 | 66 | 24 | | 21 | -3 | 45 | 45m1Cr | 1 ms | 3/2+ | | 44,979 963 91 | 809,6 |
| | 828 | 414 | 208 | 206 | 70 | 68 | 24 | | 22 | -2 | 46 | 46Cr | 0,26 s | 0+ | | 45,968 359(21) | 827,4 |
| | 846 | 423 | 212 | 211 | 71 | 70 | 24 | | 23 | -1 | 47 | 47Cr | 500 ms | 3/2− | | 46,962 8974(75) | 845,3 |
| | 864 | 432 | 216 | 216 | 72 | 72 | 24 | | 24 | 0 | 48 | 48Cr | 21,56 h | 0+ | | 47,954 0291(79) | 863,2 |
| | 882 | 441 | 220 | 221 | 73 | 74 | 24 | | 25 | 1 | 49 | 49Cr | 42,3 min | 5/2− | | 48,951 3333(25) | 881,1 |
| | 900 | 450 | 224 | 226 | 74 | 76 | 24 | | 26 | 2 | 50 | 50Cr | stabil 2ε | 0+ | 4,345 | 49,946 041 83(94) | 899,0 |
| | 918 | 459 | 228 | 231 | 75 | 78 | 24 | | 27 | 3 | 51 | 51Cr | 27,7025 d | 7/2− | | 50,944 765 02(94) | 917,0 |
| 0 | 936 | 468 | 232 | 236 | 76 | 80 | 24 | | 28 | 4 | 52 | 52Cr | stabil | 0+ | 83,789 | 51,940 506 23(63) | 934,9 |
| | 954 | 477 | 236 | 241 | 77 | 82 | 24 | | 29 | 5 | 53 | 53Cr | stabil | 3/2− | 9,501 | 52,940 648 15(62) | 952,9 |
| | 972 | 486 | 240 | 246 | 78 | 84 | 24 | | 30 | 6 | 54 | 54Cr | stabil | 0+ | 2,365 | 53,938 879 16(61) | 970,9 |
| | 990 | 495 | 244 | 251 | 79 | 86 | 24 | | 31 | 7 | 55 | 55Cr | 3,497 min | 3/2− | | 54,940 838 43(64) | 988,9 |
| | 1008 | 504 | 248 | 256 | 80 | 88 | 24 | | 32 | 8 | 56 | 56Cr | 5,94 min | 0+ | | 55,940 6531(20) | 1006,9 |
| | 1026 | 513 | 252 | 261 | 81 | 90 | 24 | | 33 | 9 | 57 | 57Cr | 21,1 s | 5/2− | | 56,943 6130(20) | 1025,0 |
| | 1044 | 522 | 256 | 266 | 82 | 92 | 24 | | 34 | 10 | 58 | 58Cr | 7 s | 0+ | | 57,944 35(22) | 1043,0 |
| | 1062 | 531 | 260 | 271 | 83 | 94 | 24 | | 35 | 11 | 59 | 59Cr | 1,05 s | 1/2− | | 58,948 59(26) | 1061,1 |
| | 1062 | 531 | 260 | 271 | 83 | 94 | 24 | | 35 | 11 | 59 | 59m1Cr | 96 µs | 9/2+ | | 58,949 126 35 | 1061,1 |
| | 1080 | 540 | 264 | 276 | 84 | 96 | 24 | | 36 | 12 | 60 | 60Cr | 0,49 s | 0+ | | 59,950 08(23) | 1079,1 |
| | 1098 | 549 | 268 | 281 | 85 | 98 | 24 | | 37 | 13 | 61 | 61Cr | 243 ms | 5/2− | | 60,954 42(14) | 1097,2 |
| | 1116 | 558 | 272 | 286 | 86 | 100 | 24 | | 38 | 14 | 62 | 62Cr | 206 ms | 0+ | | 61,956 10(16) | 1115,2 |
| | 1134 | 567 | 276 | 291 | 87 | 102 | 24 | | 39 | 15 | 63 | 63Cr | 129 ms | 1/2− | | 62,961 65(49) | 1133,3 |
| | 1152 | 576 | 280 | 296 | 88 | 104 | 24 | | 40 | 16 | 64 | 64Cr | 42 ms | 0+ | | 63,964 08(32#) | 1151,4 |
| | 1170 | 585 | 284 | 301 | 89 | 106 | 24 | | 41 | 17 | 65 | 65Cr | 28 ms | 1/2− | | 64,969 96(32#) | 1169,5 |
| | 1188 | 594 | 288 | 306 | 90 | 108 | 24 | | 42 | 18 | 66 | 66Cr | 23 ms | 0+ | | 65,973 66(54#) | 1187,5 |
| | 1206 | 603 | 292 | 311 | 91 | 110 | 24 | | 43 | 19 | 67 | 67Cr | 50 ms | 1/2− | | 66,980 16(54#) | 1205,6 |
| | 1224 | 612 | 296 | 316 | 92 | 112 | 24 | | 44 | 20 | 68 | 68Cr | > 360 ns | 0 | | 67,984 03(75#) | 1223,7 |
| | 792 | 396 | 201 | 195 | 69 | 63 | 25 | Mangan | 19 | -6 | 44 | 44Mn | 10 ns | 2− | | 44,007 15(54#) | 792,1 |
| | 810 | 405 | 205 | 200 | 70 | 65 | 25 | | 20 | -5 | 45 | 45Mn | | | | 44,994 49(43#) | 809,9 |
| | 828 | 414 | 209 | 205 | 71 | 67 | 25 | | 21 | -4 | 46 | 46Mn | 36,2 ms | 4+ | | 45,986 09(43#) | 827,7 |
| | 828 | 414 | 209 | 205 | 71 | 67 | 25 | | 21 | -4 | 46 | 46m1Mn | 1 ms | 1− | | 45,986 881 29 | 827,8 |
| | 846 | 423 | 213 | 210 | 72 | 69 | 25 | | 22 | -3 | 47 | 47Mn | 88 ms | 5/2− | | 46,975 775(34) | 845,6 |
| | 864 | 432 | 217 | 215 | 73 | 71 | 25 | | 23 | -2 | 48 | 48Mn | 158,1 ms | 4+ | | 47,968 52(18) | 863,4 |
| | 882 | 441 | 221 | 220 | 74 | 73 | 25 | | 24 | -1 | 49 | 49Mn | 382 ms | 5/2− | | 48,959 595(11) | 881,3 |
| | 900 | 450 | 225 | 225 | 75 | 75 | 25 | | 25 | 0 | 50 | 50Mn | 283,19 ms | 0+ | | 49,954 237 78(95) | 899,2 |
| | 900 | 450 | 225 | 225 | 75 | 75 | 25 | | 25 | 0 | 50 | 50m1Mn | 1,75 min | 5+ | | 49,954 484 09 | 899,2 |
| | 918 | 459 | 229 | 230 | 76 | 77 | 25 | | 26 | 1 | 51 | 51Mn | 46,2 min | 5/2− | | 50,948 208 47(94) | 917,1 |
| | 936 | 468 | 233 | 235 | 77 | 79 | 25 | | 27 | 2 | 52 | 52Mn | 5,591 d | 6+ | | 51,945 5639(20) | 935,0 |
| | 936 | 468 | 233 | 235 | 77 | 79 | 25 | | 27 | 2 | 52 | 52m1Mn | 21,1 min | 2+ | | 51,945 971 42 | 935,0 |
| | 954 | 477 | 237 | 240 | 78 | 81 | 25 | | 28 | 3 | 53 | 53Mn | 3,74·10e6 a | 7/2− | | 52,941 288 89(68) | 952,9 |
| | 972 | 486 | 241 | 245 | 79 | 83 | 25 | | 29 | 4 | 54 | 54Mn | 312,12 d | 3+ | | 53,940 3576(12) | 970,9 |
| -2 | 990 | 495 | 245 | 250 | 80 | 85 | 25 | | 30 | 5 | 55 | 55Mn | stabil | 5/2− | 100 | 54,938 043 91(48) | 988,9 |
| | 1008 | 504 | 249 | 255 | 81 | 87 | 25 | | 31 | 6 | 56 | 56Mn | 2,5789 h | 3+ | | 55,938 903 69(49) | 1006,9 |
| | 1026 | 513 | 253 | 260 | 82 | 89 | 25 | | 32 | 7 | 57 | 57Mn | 85,4 s | 5/2− | | 56,938 2861(16) | 1024,9 |
| | 1044 | 522 | 257 | 265 | 83 | 91 | 25 | | 33 | 8 | 58 | 58Mn | 3 s | 1+ | | 57,940 0666(29) | 1042,9 |
| | 1044 | 522 | 257 | 265 | 83 | 91 | 25 | | 33 | 8 | 58 | 58m1Mn | 65,4 s | 4+ | | 57,940 4402 | 1042,9 |
| | 1062 | 531 | 261 | 270 | 84 | 93 | 25 | | 34 | 9 | 59 | 59Mn | 4,59 s | 5/2− | | 58,940 3911(25) | 1060,9 |
| | 1080 | 540 | 265 | 275 | 85 | 95 | 25 | | 35 | 10 | 60 | 60Mn | 0,28 s | 0+ | | 59,943 1366(25) | 1079,0 |
| | 1080 | 540 | 265 | 275 | 85 | 95 | 25 | | 35 | 10 | 60 | 60m1Mn | 1,77 s | 3+ | | 59,943 203 18 | 1079,0 |
| | 1098 | 549 | 269 | 280 | 86 | 97 | 25 | | 36 | 11 | 61 | 61Mn | 0,67 s | 5/2− | | 60,944 4525(25) | 1097,0 |
| | 1116 | 558 | 273 | 285 | 87 | 99 | 25 | | 37 | 12 | 62 | 62Mn | 671 ms | 3+ | | 61,947 95(16#) | 1115,1 |
| | 1116 | 558 | 273 | 285 | 87 | 99 | 25 | | 37 | 12 | 62 | 62m1Mn | 92 ms | 1+ | | 61,948 5096 | 1115,1 |
| | 1134 | 567 | 277 | 290 | 88 | 101 | 25 | | 38 | 13 | 63 | 63Mn | 0,275 s | 5/2− | | 62,949 6647(40) | 1133,1 |
| | 1152 | 576 | 281 | 295 | 89 | 103 | 25 | | 39 | 14 | 64 | 64Mn | 90 ms | 3+ | | 63,953 8494(38) | 1151,2 |
| | 1152 | 576 | 281 | 295 | 89 | 103 | 25 | | 39 | 14 | 64 | 64m1Mn | 0,5 ms | 4+ | | 63,954 437 71 | 1151,2 |
| | 1170 | 585 | 285 | 300 | 90 | 105 | 25 | | 40 | 15 | 65 | 65Mn | 84 ms | 5/2− | | 64,956 0198(40) | 1169,2 |
| | 1188 | 594 | 289 | 305 | 91 | 107 | 25 | | 41 | 16 | 66 | 66Mn | 65 ms | | | 65,960 547(12) | 1187,3 |
| | 1206 | 603 | 293 | 310 | 92 | 109 | 25 | | 42 | 17 | 67 | 67Mn | 51 ms | 5/2− | | 66,964 24(43#) | 1205,4 |
| | 1224 | 612 | 297 | 315 | 93 | 111 | 25 | | 43 | 18 | 68 | 68Mn | 28 ms | | | 67,969 62(54#) | 1223,5 |
| | 1242 | 621 | 301 | 320 | 94 | 113 | 25 | | 44 | 19 | 69 | 69Mn | 18 ms | 5/2− | | 68,973 66(64#) | 1241,5 |
| | 1260 | 630 | 305 | 325 | 95 | 115 | 25 | | 45 | 20 | 70 | 70Mn | > 360 ns | | | 69,979 37(75#) | 1259,6 |
| | 1278 | 639 | 309 | 330 | 96 | 117 | 25 | | 46 | 21 | 71 | 71Mn | > 637 ns | | | 70,983 68(75#) | 1277,7 |
| | 810 | 405 | 206 | 199 | 71 | 64 | 26 | Eisen | 19 | -7 | 45 | 45Fe | 1,89 ms | 3/2+ | | 45,014 42(43#) | 810,3 |
| | 828 | 414 | 210 | 204 | 72 | 66 | 26 | | 20 | -6 | 46 | 46Fe | 13 ms | 0+ | | 46,000 63(54#) | 828,0 |
| | 846 | 423 | 214 | 209 | 73 | 68 | 26 | | 21 | -5 | 47 | 47Fe | 21,9 ms | 7/2− | | 46,991 85(54#) | 845,9 |
| | 864 | 432 | 218 | 214 | 74 | 70 | 26 | | 22 | -4 | 48 | 48Fe | 45,3 ms | 0+ | | 47,980 23(43#) | 863,6 |
| | 882 | 441 | 222 | 219 | 75 | 72 | 26 | | 23 | -3 | 49 | 49Fe | 64,7 ms | 7/2− | | 48,973 429(26) | 881,5 |
| | 900 | 450 | 226 | 224 | 76 | 74 | 26 | | 24 | -2 | 50 | 50Fe | 155 ms | 0+ | | 49,962 975(64) | 899,3 |
| | 918 | 459 | 230 | 229 | 77 | 76 | 26 | | 25 | -1 | 51 | 51Fe | 305 ms | 5/2− | | 50,956 8410(96) | 917,2 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|
| 36 | Krypton | Kr | 1464 | Stern (6x) | Ne120+6 [N63+N110+Ne22+mNe15+Ar14] |
| 36 | Meta-Krypton | mKr | 1506 | Stern (6x) | Ne120+6 [N63+N110+Ne22+Ne22+Ar14] |
| 37 | Rubidium | Rb | 1530 | Dom | (3N110)+16 [Li63+Rb12] |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1584 | 792 | 387 | 405 | 123 | 141 | 35 | | 53 | 18 | 88 | 88Br | 16,29 s | 1, 2− | | 87,924 0833(34) | 1582,6 |
| | 1584 | 792 | 387 | 405 | 123 | 141 | 35 | | 53 | 18 | 88 | 88m1Br | 5,3 µs | 5− | | 87,924 356 04 | 1582,6 |
| | 1602 | 801 | 391 | 410 | 124 | 143 | 35 | | 54 | 19 | 89 | 89Br | 4,4 s | 3/2− | | 88,926 7046(35) | 1600,7 |
| | 1620 | 810 | 395 | 415 | 125 | 145 | 35 | | 55 | 20 | 90 | 90Br | 1,91 s | 2− | | 89,931 2928(36) | 1618,8 |
| | 1638 | 819 | 399 | 420 | 126 | 147 | 35 | | 56 | 21 | 91 | 91Br | 0,541 s | 5/2− | | 90,934 3986(38) | 1636,8 |
| | 1656 | 828 | 403 | 425 | 127 | 149 | 35 | | 57 | 22 | 92 | 92Br | 0,343 s | 2− | | 91,939 6316(72) | 1654,9 |
| | 1674 | 837 | 407 | 430 | 128 | 151 | 35 | | 58 | 23 | 93 | 93Br | 102 ms | 5/2− | | 92,943 13(48) | 1673,0 |
| | 1692 | 846 | 411 | 435 | 129 | 153 | 35 | | 59 | 24 | 94 | 94Br | 70 ms | | | 93,948 90(43#) | 1691,1 |
| | 1710 | 855 | 415 | 440 | 130 | 155 | 35 | | 60 | 25 | 95 | 95Br | > 150 ns | 3/2− | | 94,953 01(21#) | 1709,2 |
| | 1728 | 864 | 419 | 445 | 131 | 157 | 35 | | 61 | 26 | 96 | 96Br | > 150 ns | | | 95,959 03(32#) | 1727,3 |
| | 1746 | 873 | 423 | 450 | 132 | 159 | 35 | | 62 | 27 | 97 | 97Br | > 300 ns | 3/2− | | 96,963 44(43#) | 1745,3 |
| | 1764 | 882 | 427 | 455 | 133 | 161 | 35 | | 63 | 28 | 98 | 98Br | > 634 ns | | | 97,969 46(43#) | 1763,5 |
| | 1242 | 621 | 312 | 309 | 105 | 102 | 36 | Krypton | 33 | -3 | 69 | 69Kr | 32 ms | 5/2− | | 68,965 18(43#) | 1241,4 |
| | 1260 | 630 | 316 | 314 | 106 | 104 | 36 | | 34 | -2 | 70 | 70Kr | 52 ms | 0+ | | 69,956 04(21#) | 1259,2 |
| | 1278 | 639 | 320 | 319 | 107 | 106 | 36 | | 35 | -1 | 71 | 71Kr | 100 ms | 5/2− | | 70,950 27(14) | 1277,1 |
| | 1296 | 648 | 324 | 324 | 108 | 108 | 36 | | 36 | 0 | 72 | 72Kr | 17,1 s | 0+ | | 71,942 0924(86) | 1295,0 |
| | 1314 | 657 | 328 | 329 | 109 | 110 | 36 | | 37 | 1 | 73 | 73Kr | 27,3 s | 5/2− | | 72,939 2892(71) | 1312,9 |
| | 1314 | 657 | 328 | 329 | 109 | 110 | 36 | | 37 | 1 | 73 | 73m1Kr | 107 s | 9/2+ | | 72,939 755 49 | 1312,9 |
| | 1332 | 666 | 332 | 334 | 110 | 112 | 36 | | 38 | 2 | 74 | 74Kr | 11,5 min | 0+ | | 73,933 0840(22) | 1330,8 |
| | 1350 | 675 | 336 | 339 | 111 | 114 | 36 | | 39 | 3 | 75 | 75Kr | 4,29 min | 5/2+ | | 74,930 9457(87) | 1348,8 |
| | 1368 | 684 | 340 | 344 | 112 | 116 | 36 | | 40 | 4 | 76 | 76Kr | 14,8 h | 0+ | | 75,925 9103(43) | 1366,7 |
| | 1386 | 693 | 344 | 349 | 113 | 118 | 36 | | 41 | 5 | 77 | 77Kr | 74,4 min | 5/2+ | | 76,924 6700(21) | 1384,6 |
| | 1404 | 702 | 348 | 354 | 114 | 120 | 36 | | 42 | 6 | 78 | 78Kr | > 1,5·10e21 a | 0+ | 0,355 | 77,920 364 94(76) | 1402,6 |
| | 1422 | 711 | 352 | 359 | 115 | 122 | 36 | | 43 | 7 | 79 | 79Kr | 35,04 h | 1/2− | | 78,920 0829(38) | 1420,6 |
| | 1422 | 711 | 352 | 359 | 115 | 122 | 36 | | 43 | 7 | 79 | 79m1Kr | 50 s | 7/2+ | | 78,920 221 82 | 1420,6 |
| | 1440 | 720 | 356 | 364 | 116 | 124 | 36 | | 44 | 8 | 80 | 80Kr | stabil | 0+ | 2,286 | 79,916 378 08(75) | 1438,5 |
| | 1458 | 729 | 360 | 369 | 117 | 126 | 36 | | 45 | 9 | 81 | 81Kr | 2,29·10e5 a | 7/2+ | | 80,916 5912(15) | 1456,5 |
| | 1458 | 729 | 360 | 369 | 117 | 126 | 36 | | 45 | 9 | 81 | 81m1Kr | 13,1 s | 1/2− | | 80,916 796 68 | 1456,5 |
| 12 | 1476 | 738 | 364 | 374 | 118 | 128 | 36 | | 46 | 10 | 82 | 82Kr | stabil | 0+ | 11,593 | 81,913 482 73(94) | 1474,4 |
| | 1494 | 747 | 368 | 379 | 119 | 130 | 36 | | 47 | 11 | 83 | 83Kr | stabil | 9/2+ | 11,5 | 82,914 127 16(32) | 1492,5 |
| | 1494 | 747 | 368 | 379 | 119 | 130 | 36 | | 47 | 11 | 83 | 83m1Kr | 1,85 h | 1/2− | | 82,914 180 77 | 1492,5 |
| | 1494 | 747 | 368 | 379 | 119 | 130 | 36 | | 47 | 11 | 83 | 83m2Kr | 154,4 ns | 7/2+ | | 82,914 1462 | 1492,5 |
| 6 | 1512 | 756 | 372 | 384 | 120 | 132 | 36 | | 48 | 12 | 84 | 84Kr | stabil | 0+ | 56,987 | 83,911 497 7282(44) | 1510,4 |
| | 1512 | 756 | 372 | 384 | 120 | 132 | 36 | | 48 | 12 | 84 | 84m1Kr | 1,9 µs | 8+ | | 83,911 854 08 | 1510,4 |
| | 1530 | 765 | 376 | 389 | 121 | 134 | 36 | | 49 | 13 | 85 | 85Kr | 10,752 a | 9/2+ | | 84,912 5273(21) | 1528,4 |
| | 1530 | 765 | 376 | 389 | 121 | 134 | 36 | | 49 | 13 | 85 | 85m1Kr | 4,48 h | 1/2− | | 84,912 854 73 | 1528,4 |
| | 1530 | 765 | 376 | 389 | 121 | 134 | 36 | | 49 | 13 | 85 | 85m2Kr | 1,7 µs | 19/2+ | | 84,914 665 58 | 1528,5 |
| | 1548 | 774 | 380 | 394 | 122 | 136 | 36 | | 50 | 14 | 86 | 86Kr | stabil 2β | 0+ | 17,279 | 85,910 610 6269(41) | 1546,4 |
| | 1566 | 783 | 384 | 399 | 123 | 138 | 36 | | 51 | 15 | 87 | 87Kr | 76,3 min | 5/2+ | | 86,913 354 76(26) | 1564,4 |
| | 1584 | 792 | 388 | 404 | 124 | 140 | 36 | | 52 | 16 | 88 | 88Kr | 2,84 h | 0+ | | 87,914 4479(28) | 1582,5 |
| | 1602 | 801 | 392 | 409 | 125 | 142 | 36 | | 53 | 17 | 89 | 89Kr | 3,15 min | 3/2+ | | 88,917 8355(23) | 1600,5 |
| | 1620 | 810 | 396 | 414 | 126 | 144 | 36 | | 54 | 18 | 90 | 90Kr | 32,32 s | 0+ | | 89,919 5279(20) | 1618,6 |
| | 1638 | 819 | 400 | 419 | 127 | 146 | 36 | | 55 | 19 | 91 | 91Kr | 8,57 s | 5/2+ | | 90,923 8063(24) | 1636,6 |
| | 1656 | 828 | 404 | 424 | 128 | 148 | 36 | | 56 | 20 | 92 | 92Kr | 1,84 s | 0+ | | 91,926 1731(29) | 1654,7 |
| | 1674 | 837 | 408 | 429 | 129 | 150 | 36 | | 57 | 21 | 93 | 93Kr | 1,286 s | 1/2+ | | 92,931 1472(27) | 1672,8 |
| | 1692 | 846 | 412 | 434 | 130 | 152 | 36 | | 58 | 22 | 94 | 94Kr | 212 ms | 0+ | | 93,934 140(13) | 1690,8 |
| | 1710 | 855 | 416 | 439 | 131 | 154 | 36 | | 59 | 23 | 95 | 95Kr | 114 ms | 1/2 | | 94,939 711(20) | 1708,9 |
| | 1728 | 864 | 420 | 444 | 132 | 156 | 36 | | 60 | 24 | 96 | 96Kr | 80 ms | 0+ | | 95,943 017(22) | 1727,0 |
| | 1746 | 873 | 424 | 449 | 133 | 158 | 36 | | 61 | 25 | 97 | 97Kr | 63 ms | 3/2+ | | 96,949 09(14) | 1745,1 |
| | 1764 | 882 | 428 | 454 | 134 | 160 | 36 | | 62 | 26 | 98 | 98Kr | 46 ms | 0+ | | 97,952 43(32#) | 1763,1 |
| | 1782 | 891 | 432 | 459 | 135 | 162 | 36 | | 63 | 27 | 99 | 99Kr | 13 ms | 3/2+ | | 98,958 39(54#) | 1781,3 |
| | 1800 | 900 | 436 | 464 | 136 | 164 | 36 | | 64 | 28 | 100 | 100Kr | 7 ms | 0+ | | 99,962 37(43#) | 1799,3 |
| | 1818 | 909 | 440 | 469 | 137 | 166 | 36 | | 65 | 29 | 101 | 101Kr | > 635 ns | | | 100,968 73(54#) | 1817,4 |
| | 1332 | 666 | 333 | 333 | 111 | 111 | 37 | Rubidium | 37 | 0 | 74 | 74Rb | 64,9 ms | (0+) | | | |
| | 1350 | 675 | 337 | 338 | 112 | 113 | 37 | | 38 | 1 | 75 | 75Rb | 19,0 s | 5/2−) | | | |
| | 1368 | 684 | 341 | 343 | 113 | 115 | 37 | | 39 | 2 | 76 | 76Rb | 36,5 s | 1(−) | | | |
| | 1386 | 693 | 345 | 348 | 114 | 117 | 37 | | 40 | 3 | 77 | 77Rb | 3,77 min | 3/2− | | | |
| | 1404 | 702 | 349 | 353 | 115 | 119 | 37 | | 41 | 4 | 78 | 78Rb | 17,66 min | 0(+) | | | |
| | 1404 | 702 | 349 | 353 | 115 | 119 | 37 | | 41 | 4 | 78 | 78m1Rb | 5,74 min | 4(−) | | | |
| | 1422 | 711 | 353 | 358 | 116 | 121 | 37 | | 42 | 5 | 79 | 79Rb | 22,9 min | 5/2+ | | | |
| | 1440 | 720 | 357 | 363 | 117 | 123 | 37 | | 43 | 6 | 80 | 80Rb | 34 s | 1+ | | | |
| | 1458 | 729 | 361 | 368 | 118 | 125 | 37 | | 44 | 7 | 81 | 81Rb | 4,576 h | 3/2− | | | |
| | 1458 | 729 | 361 | 368 | 118 | 125 | 37 | | 44 | 7 | 81 | 81m1Rb | 30,5 min | 9/2+ | | | |
| | 1476 | 738 | 365 | 373 | 119 | 127 | 37 | | 45 | 8 | 82 | 82Rb | 1,273 min | 1+ | | | |
| | 1476 | 738 | 365 | 373 | 119 | 127 | 37 | | 45 | 8 | 82 | 82m1Rb | 6,472 h | 5− | | | |
| | 1494 | 747 | 369 | 378 | 120 | 129 | 37 | | 46 | 9 | 83 | 83Rb | 86,2 d | 5/2− | | | |
| | 1494 | 747 | 369 | 378 | 120 | 129 | 37 | | 46 | 9 | 83 | 83m1Rb | 7,8 ms | 9/2+ | | | |
| | 1512 | 756 | 373 | 383 | 121 | 131 | 37 | | 47 | 10 | 84 | 84Rb | 32,77 d | 2− | | | |
| | 1512 | 756 | 373 | 383 | 121 | 131 | 37 | | 47 | 10 | 84 | 84m1Rb | 20,26 min | 6− | | | |
| 0 | 1530 | 765 | 377 | 388 | 122 | 133 | 37 | | 48 | 11 | 85 | 85Rb | stabil | 5/2− | 72,165 | | |
| | 1548 | 774 | 381 | 393 | 123 | 135 | 37 | | 49 | 12 | 86 | 86Rb | 18,631 d | 2− | | | |
| | 1548 | 774 | 381 | 393 | 123 | 135 | 37 | | 49 | 12 | 86 | 86m1Rb | 1,017 min | 6− | | | |
| | 1566 | 783 | 385 | 398 | 124 | 137 | 37 | | 50 | 13 | 87 | 87Rb | 4,81·10e10 a | 3/2− | 27,835 | | |
| | 1584 | 792 | 389 | 403 | 125 | 139 | 37 | | 51 | 14 | 88 | 88Rb | 17,78 min | 2− | | | |
| | 1602 | 801 | 393 | 408 | 126 | 141 | 37 | | 52 | 15 | 89 | 89Rb | 15,15 min | 3/2− | | | |
| | 1620 | 810 | 397 | 413 | 127 | 143 | 37 | | 53 | 16 | 90 | 90Rb | 158 s | 0− | | | |
| | 1620 | 810 | 397 | 413 | 127 | 143 | 37 | | 53 | 16 | 90 | 90m1Rb | 258 s | 3− | | | |
| | 1638 | 819 | 401 | 418 | 128 | 145 | 37 | | 54 | 17 | 91 | 91Rb | 58,4 s | 3/2(−) | | | |
| | 1656 | 828 | 405 | 423 | 129 | 147 | 37 | | 55 | 18 | 92 | 92Rb | 4,492 s | 0− | | | |
| | 1674 | 837 | 409 | 428 | 130 | 149 | 37 | | 56 | 19 | 93 | 93Rb | 5,84 s | 5/2− | | | |
| | 1692 | 846 | 413 | 433 | 131 | 151 | 37 | | 57 | 20 | 94 | 94Rb | 2,702 s | 3(−) | | | |
| | 1710 | 855 | 417 | 438 | 132 | 153 | 37 | | 58 | 21 | 95 | 95Rb | 377,5 ms | 5/2− | | | |
| | 1728 | 864 | 421 | 443 | 133 | 155 | 37 | | 59 | 22 | 96 | 96Rb | 0,199 s | 2+ | | | |
| | 1746 | 873 | 425 | 448 | 134 | 157 | 37 | | 60 | 23 | 97 | 97Rb | 169,9 ms | 3/2(+) | | | |
| | 1764 | 882 | 429 | 453 | 135 | 159 | 37 | | 61 | 24 | 98 | 98Rb | 114 ms | (1, 0) | | | |
| | 1764 | 882 | 429 | 453 | 135 | 159 | 37 | | 61 | 24 | 98 | 98m1Rb | 96 ms | (4, 5) | | | |
| | 1782 | 891 | 433 | 458 | 136 | 161 | 37 | | 62 | 25 | 99 | 99Rb | 50,3 ms | (5/2+) | | | |
| | 1800 | 900 | 437 | 463 | 137 | 163 | 37 | | 63 | 26 | 100 | 100Rb | 51 ms | | | | |
| | 1818 | 909 | 441 | 468 | 138 | 165 | 37 | | 64 | 27 | 101 | 101Rb | 32 ms | (3/2+) | | | |
| | 1836 | 918 | 445 | 473 | 139 | 167 | 37 | | 65 | 28 | 102 | 102Rb | 37 ms | | | | |
| | 1350 | 675 | 338 | 337 | 113 | 112 | 38 | Strontium | 37 | -1 | 75 | 75Sr | 71 ms | | | | |
| | 1368 | 684 | 342 | 342 | 114 | 114 | 38 | | 38 | 0 | 76 | 76Sr | 8,9 s | 0+ | | | |
| | 1386 | 693 | 346 | 347 | 115 | 116 | 38 | | 39 | 1 | 77 | 77Sr | 9,0 s | 5/2+ | | | |
| | 1404 | 702 | 350 | 352 | 116 | 118 | 38 | | 40 | 2 | 78 | 78Sr | 2,5 min | 0+ | | | |
| | 1422 | 711 | 354 | 357 | 117 | 120 | 38 | | 41 | 3 | 79 | 79Sr | 2,25 min | 3/2(−) | | | |
| | 1440 | 720 | 358 | 362 | 118 | 122 | 38 | | 42 | 4 | 80 | 80Sr | 106,3 min | 0+ | | | |
| | 1458 | 729 | 362 | 367 | 119 | 124 | 38 | | 43 | 5 | 81 | 81Sr | 22,3 min | 1/2− | | | |

| | | | | | |
|---|---|---|---|---|---|
| 38 | Strontium | Sr | 1568 | Tetraeder A | (Sr96)+4 (2Ca160+2Sr24) |
| 39 | Yttrium | Y (Yt) | 1606 | Würfel A | (Ad24+Yt16)+6 [N63+N110+Yt44+(4Yt8+2Ad6)] |
| 40 | Zirkon(ium) | Zr | 1624 | Oktaeder A | (Ne120+8)+12Zr36+4 (Zr212+C27+C26+1) |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1476 | 738 | 366 | 372 | 120 | 126 | 38 | | 44 | 6 | 82 | 82Sr | 25,55 d | 0+ | | | |
| | 1494 | 747 | 370 | 377 | 121 | 128 | 38 | | 45 | 7 | 83 | 83Sr | 32,41 h | 7/2+ | | | |
| | 1494 | 747 | 370 | 377 | 121 | 128 | 38 | | 45 | 7 | 83 | 83m1Sr | 4,95 s | 1/2− | | | |
| | 1512 | 756 | 374 | 382 | 122 | 130 | 38 | | 46 | 8 | 84 | 84Sr | stabil 2ε | 0+ | 0,56 | | |
| | 1530 | 765 | 378 | 387 | 123 | 132 | 38 | | 47 | 9 | 85 | 85Sr | 64,84 d | 9/2+ | | | |
| | 1530 | 765 | 378 | 387 | 123 | 132 | 38 | | 47 | 9 | 85 | 85m1Sr | 67,63 min | 1/2− | | | |
| | 1548 | 774 | 382 | 392 | 124 | 134 | 38 | | 48 | 10 | 86 | 86Sr | stabil | 0+ | 9,86 | | |
| | 1548 | 774 | 382 | 392 | 124 | 134 | 38 | | 48 | 10 | 86 | 86m1Sr | 0,45 µs | 8+ | | | |
| -2 | 1566 | 783 | 386 | 397 | 125 | 136 | 38 | | 49 | 11 | 87 | 87Sr | stabil | 9/2+ | 7 | | |
| | 1566 | 783 | 386 | 397 | 125 | 136 | 38 | | 49 | 11 | 87 | 87m1Sr | 2,803 h | 1/2− | | | |
| | 1584 | 792 | 390 | 402 | 126 | 138 | 38 | | 50 | 12 | 88 | 88Sr | stabil | 0+ | 82,58 | | |
| | 1602 | 801 | 394 | 407 | 127 | 140 | 38 | | 51 | 13 | 89 | 89Sr | 50,53 d | 5/2+ | | | |
| | 1620 | 810 | 398 | 412 | 128 | 142 | 38 | | 52 | 14 | 90 | 90Sr | 28,79 a | 0+ | | | |
| | 1638 | 819 | 402 | 417 | 129 | 144 | 38 | | 53 | 15 | 91 | 91Sr | 9,63 h | 5/2+ | | | |
| | 1656 | 828 | 406 | 422 | 130 | 146 | 38 | | 54 | 16 | 92 | 92Sr | 2,71 h | 0+ | | | |
| | 1674 | 837 | 410 | 427 | 131 | 148 | 38 | | 55 | 17 | 93 | 93Sr | 7,423 min | 5/2+ | | | |
| | 1692 | 846 | 414 | 432 | 132 | 150 | 38 | | 56 | 18 | 94 | 94Sr | 75,3 s | 0+ | | | |
| | 1710 | 855 | 418 | 437 | 133 | 152 | 38 | | 57 | 19 | 95 | 95Sr | 23,90 s | 1/2+ | | | |
| | 1728 | 864 | 422 | 442 | 134 | 154 | 38 | | 58 | 20 | 96 | 96Sr | 1,07 s | 0+ | | | |
| | 1746 | 873 | 426 | 447 | 135 | 156 | 38 | | 59 | 21 | 97 | 97Sr | 426 ms | 1/2+ | | | |
| | 1746 | 873 | 426 | 447 | 135 | 156 | 38 | | 59 | 21 | 97 | 97m1Sr | 0,17 µs | 7/2+ | | | |
| | 1746 | 873 | 426 | 447 | 135 | 156 | 38 | | 59 | 21 | 97 | 97m2Sr | 0,255 µs | 11/2− | | | |
| | 1764 | 882 | 430 | 452 | 136 | 158 | 38 | | 60 | 22 | 98 | 98Sr | 0,653 s | 0+ | | | |
| | 1782 | 891 | 434 | 457 | 137 | 160 | 38 | | 61 | 23 | 99 | 99Sr | 0,269 s | 3/2+ | | | |
| | 1800 | 900 | 438 | 462 | 138 | 162 | 38 | | 62 | 24 | 100 | 100Sr | 202 ms | 0+ | | | |
| | 1818 | 909 | 442 | 467 | 139 | 164 | 38 | | 63 | 25 | 101 | 101Sr | 118 ms | (5/2−) | | | |
| | 1836 | 918 | 446 | 472 | 140 | 166 | 38 | | 64 | 26 | 102 | 102Sr | 69 ms | 0+ | | | |
| | 1386 | 693 | 347 | 346 | 116 | 115 | 39 | Yttrium | 38 | -1 | 77 | 77Y | 63 ms | | | | |
| | 1422 | 711 | 355 | 356 | 118 | 119 | 39 | | 40 | 1 | 79 | 79Y | 14,8 s | (5/2+) | | | |
| | 1440 | 720 | 359 | 361 | 119 | 121 | 39 | | 41 | 2 | 80 | 80Y | 35 s | (3,4,5) | | | |
| | 1458 | 729 | 363 | 366 | 120 | 123 | 39 | | 42 | 3 | 81 | 81Y | 70,4 s | (5/2+) | | | |
| | 1476 | 738 | 367 | 371 | 121 | 125 | 39 | | 43 | 4 | 82 | 82Y | 9,5 s | 1+ | | | |
| | 1494 | 747 | 371 | 376 | 122 | 127 | 39 | | 44 | 5 | 83 | 83Y | 7,08 min | (9/2+) | | | |
| | 1494 | 747 | 371 | 376 | 122 | 127 | 39 | | 44 | 5 | 83 | 83m1Y | 2,85 min | (3/2−) | | | |
| | 1512 | 756 | 375 | 381 | 123 | 129 | 39 | | 45 | 6 | 84 | 84Y | 4,6 s | 1+ | | | |
| | 1512 | 756 | 375 | 381 | 123 | 129 | 39 | | 45 | 6 | 84 | 84m1Y | 39,5 min | (5−) | | | |
| | 1530 | 765 | 379 | 386 | 124 | 131 | 39 | | 46 | 7 | 85 | 85Y | 2,68 h | (1/2)− | | | |
| | 1530 | 765 | 379 | 386 | 124 | 131 | 39 | | 46 | 7 | 85 | 85m1Y | 4,86 h | 9/2+ | | | |
| | 1548 | 774 | 383 | 391 | 125 | 133 | 39 | | 47 | 8 | 86 | 86Y | 14,74 h | 4− | | | |
| | 1548 | 774 | 383 | 391 | 125 | 133 | 39 | | 47 | 8 | 86 | 86m1Y | 48 min | (8+) | | | |
| | 1566 | 783 | 387 | 396 | 126 | 135 | 39 | | 48 | 9 | 87 | 87Y | 79,8 h | 1/2− | | | |
| | 1566 | 783 | 387 | 396 | 126 | 135 | 39 | | 48 | 9 | 87 | 87m1Y | 13,37 h | 9/2+ | | | |
| | 1584 | 792 | 391 | 401 | 127 | 137 | 39 | | 49 | 10 | 88 | 88Y | 106,65 d | 4− | | | |
| | 1584 | 792 | 391 | 401 | 127 | 137 | 39 | | 49 | 10 | 88 | 88m1Y | 13,9 ms | (8)+ | | | |
| -4 | 1602 | 801 | 395 | 406 | 128 | 139 | 39 | | 50 | 11 | 89 | 89Y | stabil | 1/2− | 100 | | |
| | 1602 | 801 | 395 | 406 | 128 | 139 | 39 | | 50 | 11 | 89 | 89m1Y | 16,06 s | 9/2+ | | | |
| | 1620 | 810 | 399 | 411 | 129 | 141 | 39 | | 51 | 12 | 90 | 90Y | 64,00 h | 2− | | | |
| | 1620 | 810 | 399 | 411 | 129 | 141 | 39 | | 51 | 12 | 90 | 90m1Y | 3,19 h | 7+ | | | |
| | 1638 | 819 | 403 | 416 | 130 | 143 | 39 | | 52 | 13 | 91 | 91Y | 58,51 d | 1/2− | | | |
| | 1638 | 819 | 403 | 416 | 130 | 143 | 39 | | 52 | 13 | 91 | 91m1Y | 49,71 min | 9/2+ | | | |
| | 1656 | 828 | 407 | 421 | 131 | 145 | 39 | | 53 | 14 | 92 | 92Y | 3,54 h | 2− | | | |
| | 1674 | 837 | 411 | 426 | 132 | 147 | 39 | | 54 | 15 | 93 | 93Y | 10,18 h | 1/2− | | | |
| | 1674 | 837 | 411 | 426 | 132 | 147 | 39 | | 54 | 15 | 93 | 93m1Y | 0,82 s | 7/2+ | | | |
| | 1692 | 846 | 415 | 431 | 133 | 149 | 39 | | 55 | 16 | 94 | 94Y | 18,7 min | 2− | | | |
| | 1710 | 855 | 419 | 436 | 134 | 151 | 39 | | 56 | 17 | 95 | 95Y | 10,3 min | 1/2− | | | |
| | 1728 | 864 | 423 | 441 | 135 | 153 | 39 | | 57 | 18 | 96 | 96Y | 5,34 s | 0− | | | |
| | 1728 | 864 | 423 | 441 | 135 | 153 | 39 | | 57 | 18 | 96 | 96m1Y | 9,6 s | (8+) | | | |
| | 1746 | 873 | 427 | 446 | 136 | 155 | 39 | | 58 | 19 | 97 | 97Y | 3,75 s | (1/2−) | | | |
| | 1746 | 873 | 427 | 446 | 136 | 155 | 39 | | 58 | 19 | 97 | 97m1Y | 1,17 s | 9/2+ | | | |
| | 1746 | 873 | 427 | 446 | 136 | 155 | 39 | | 58 | 19 | 97 | 97m2Y | 142 ms | 27/2− | | | |
| | 1764 | 882 | 431 | 451 | 137 | 157 | 39 | | 59 | 20 | 98 | 98Y | 0,584 s | 0− | | | |
| | 1764 | 882 | 431 | 451 | 137 | 157 | 39 | | 59 | 20 | 98 | 98m1Y | 2 s | 4, 5 | | | |
| | 1782 | 891 | 435 | 456 | 138 | 159 | 39 | | 60 | 21 | 99 | 99Y | 1,470 s | 5/2+ | | | |
| | 1800 | 900 | 439 | 461 | 139 | 161 | 39 | | 61 | 22 | 100 | 100Y | 0,735 s | 1−, 2− | | | |
| | 1800 | 900 | 439 | 461 | 139 | 161 | 39 | | 61 | 22 | 100 | 100m1Y | 0,94 s | 3, 4, 5 | | | |
| | 1818 | 909 | 443 | 466 | 140 | 163 | 39 | | 62 | 23 | 101 | 101Y | 0,45 s | 5/2+ | | | |
| | 1836 | 918 | 447 | 471 | 141 | 165 | 39 | | 63 | 24 | 102 | 102Y | 0,36 s | | | | |
| | 1836 | 918 | 447 | 471 | 141 | 165 | 39 | | 63 | 24 | 102 | 102m1Y | 0,3 s | | | | |
| | 1854 | 927 | 451 | 476 | 142 | 167 | 39 | | 64 | 25 | 103 | 103Y | 0,23 s | 5/2+ | | | |
| | 1872 | 936 | 455 | 481 | 143 | 169 | 39 | | 65 | 26 | 104 | 104Y | | | | | |
| | 1458 | 729 | 364 | 365 | 121 | 122 | 40 | Zirconium | 41 | 1 | 81 | 81Zr | 15 s | | | | |
| | 1476 | 738 | 368 | 370 | 122 | 124 | 40 | | 42 | 2 | 82 | 82Zr | 32 s | 0+ | | | |
| | 1494 | 747 | 372 | 375 | 123 | 126 | 40 | | 43 | 3 | 83 | 83Zr | 44 s | (1/2−) | | | |
| | 1512 | 756 | 376 | 380 | 124 | 128 | 40 | | 44 | 4 | 84 | 84Zr | 25,9 min | 0+ | | | |
| | 1530 | 765 | 380 | 385 | 125 | 130 | 40 | | 45 | 5 | 85 | 85Zr | 7,86 min | 7/2+ | | | |
| | 1530 | 765 | 380 | 385 | 125 | 130 | 40 | | 45 | 5 | 85 | 85m1Zr | 10,9 s | (1/2−) | | | |
| | 1548 | 774 | 384 | 390 | 126 | 132 | 40 | | 46 | 6 | 86 | 86Zr | 16,5 h | 0+ | | | |
| | 1566 | 783 | 388 | 395 | 127 | 134 | 40 | | 47 | 7 | 87 | 87Zr | 1,68 h | (9/2)+ | | | |
| | 1566 | 783 | 388 | 395 | 127 | 134 | 40 | | 47 | 7 | 87 | 87m1Zr | 14,0 s | (1/2)− | | | |
| | 1584 | 792 | 392 | 400 | 128 | 136 | 40 | | 48 | 8 | 88 | 88Zr | 83,4 d | 0+ | | | |
| | 1602 | 801 | 396 | 405 | 129 | 138 | 40 | | 49 | 9 | 89 | 89Zr | 78,41 h | 9/2+ | | | |
| | 1602 | 801 | 396 | 405 | 129 | 138 | 40 | | 49 | 9 | 89 | 89m1Zr | 4,18 min | 1/2− | | | |
| -4 | 1620 | 810 | 400 | 410 | 130 | 140 | 40 | | 50 | 10 | 90 | 90Zr | stabil | 0+ | 51,45 | | |
| | 1620 | 810 | 400 | 410 | 130 | 140 | 40 | | 50 | 10 | 90 | 90m1Zr | 809,2 ms | 5− | | | |
| | 1638 | 819 | 404 | 415 | 131 | 142 | 40 | | 51 | 11 | 91 | 91Zr | stabil | 5/2+ | 11,22 | | |
| | 1656 | 828 | 408 | 420 | 132 | 144 | 40 | | 52 | 12 | 92 | 92Zr | stabil | 0+ | 17,15 | | |
| | 1674 | 837 | 412 | 425 | 133 | 146 | 40 | | 53 | 13 | 93 | 93Zr | 1,53·10e6 a | 5/2+ | | | |
| | 1692 | 846 | 416 | 430 | 134 | 148 | 40 | | 54 | 14 | 94 | 94Zr | stabil 2β | 0+ | 17,38 | | |
| | 1710 | 855 | 420 | 435 | 135 | 150 | 40 | | 55 | 15 | 95 | 95Zr | 64,02 d | 5/2+ | | | |
| | 1728 | 864 | 424 | 440 | 136 | 152 | 40 | | 56 | 16 | 96 | 96Zr | 3,8·10e19 a | 0+ | 2,8 | | |
| | 1746 | 873 | 428 | 445 | 137 | 154 | 40 | | 57 | 17 | 97 | 97Zr | 16,91 h | 1/2+ | | | |
| | 1764 | 882 | 432 | 450 | 138 | 156 | 40 | | 58 | 18 | 98 | 98Zr | 30,7 s | 0+ | | | |
| | 1782 | 891 | 436 | 455 | 139 | 158 | 40 | | 59 | 19 | 99 | 99Zr | 2,1 s | (1/2+) | | | |
| | 1800 | 900 | 440 | 460 | 140 | 160 | 40 | | 60 | 20 | 100 | 100Zr | 7,1 s | 0+ | | | |
| | 1818 | 909 | 444 | 465 | 141 | 162 | 40 | | 61 | 21 | 101 | 101Zr | 2,3 s | (3/2+) | | | |
| | 1836 | 918 | 448 | 470 | 142 | 164 | 40 | | 62 | 22 | 102 | 102Zr | 2,9 s | 0+ | | | |
| | 1854 | 927 | 452 | 475 | 143 | 166 | 40 | | 63 | 23 | 103 | 103Zr | 1,3 s | (5/2−) | | | |

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|---|---|---|---|---|---|
| 50 | Zinn | Sn | 2124 | Oktaeder B | Ne120+8 (4Ge39)+6 Sn126 |
| 51 | Antimon | Sb | 2169 | Würfel B | 3 [2Sb128+Sb113]+3 [2Sb113+Sb128] |
| 51 | Antimon | Sb | 2169 | Würfel B | 3 [2Sb128+Sb113]+3 [2Sb113+Sb128] |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2340 | 1170 | 569 | 601 | 179 | 211 | 49 | | 81 | 32 | 130 | 130m2In | 0,55 s | (5+) | | | | |
| | 2358 | 1179 | 573 | 606 | 180 | 213 | 49 | | 82 | 33 | 131 | 131In | 0,282 s | (9/2+) | | | | |
| | 2358 | 1179 | 573 | 606 | 180 | 213 | 49 | | 82 | 33 | 131 | 131m1In | 0,35 s | (1/2−) | | | | |
| | 2358 | 1179 | 573 | 606 | 180 | 213 | 49 | | 82 | 33 | 131 | 131m2In | 0,32 s | (21/2+) | | | | |
| | 2376 | 1188 | 577 | 611 | 181 | 215 | 49 | | 83 | 34 | 132 | 132In | 0,201 s | (7−) | | | | |
| | 2394 | 1197 | 581 | 616 | 182 | 217 | 49 | | 84 | 35 | 133 | 133In | 180 ms | (9/2+) | | | | |
| | 2412 | 1206 | 585 | 621 | 183 | 219 | 49 | | 85 | 36 | 134 | 134In | 138 ms | | | | | |
| | 1800 | 900 | 450 | 450 | 150 | 150 | 50 | Zinn | 50 | 0 | 100 | 100Sn | (1,16±0,2) s | 0+ | | | | |
| | 1818 | 909 | 454 | 455 | 151 | 152 | 50 | | 51 | 1 | 101 | 101Sn | 3 s | | | | | |
| | 1836 | 918 | 458 | 460 | 152 | 154 | 50 | | 52 | 2 | 102 | 102Sn | 4,5 s | 0+ | | | | |
| | 1854 | 927 | 462 | 465 | 153 | 156 | 50 | | 53 | 3 | 103 | 103Sn | 7 s | 7,7 | | | | |
| | 1872 | 936 | 466 | 470 | 154 | 158 | 50 | | 54 | 4 | 104 | 104Sn | 20,8 s | 0+ | | | | |
| | 1890 | 945 | 470 | 475 | 155 | 160 | 50 | | 55 | 5 | 105 | 105Sn | 31 s | | | | | |
| | 1908 | 954 | 474 | 480 | 156 | 162 | 50 | | 56 | 6 | 106 | 106Sn | 115 s | 0+ | | | | |
| | 1926 | 963 | 478 | 485 | 157 | 164 | 50 | | 57 | 7 | 107 | 107Sn | 2,90 min | (5/2+) | | | | |
| | 1944 | 972 | 482 | 490 | 158 | 166 | 50 | | 58 | 8 | 108 | 108Sn | 10,30 min | 0+ | | | | |
| | 1962 | 981 | 486 | 495 | 159 | 168 | 50 | | 59 | 9 | 109 | 109Sn | 18,0 min | 5/2(+) | | | | |
| | 1980 | 990 | 490 | 500 | 160 | 170 | 50 | | 60 | 10 | 110 | 110Sn | 4,11 h | 0+ | | | | |
| | 1998 | 999 | 494 | 505 | 161 | 172 | 50 | | 61 | 11 | 111 | 111Sn | 35,3 min | 7/2+ | | | | |
| | 2016 | 1008 | 498 | 510 | 162 | 174 | 50 | | 62 | 12 | 112 | 112Sn | stabil 2ε | 0+ | 0,97 | | | |
| | 2034 | 1017 | 502 | 515 | 163 | 176 | 50 | | 63 | 13 | 113 | 113Sn | 115,09 d | 1/2+ | | | | |
| | 2034 | 1017 | 502 | 515 | 163 | 176 | 50 | | 63 | 13 | 113 | 113m1Sn | 21,4 min | 7/2+ | | | | |
| | 2052 | 1026 | 506 | 520 | 164 | 178 | 50 | | 64 | 14 | 114 | 114Sn | stabil SF | 0+ | 0,65 | | | |
| | 2052 | 1026 | 506 | 520 | 164 | 178 | 50 | | 64 | 14 | 114 | 114m1Sn | 3,26 µs | 7/2+ | | | | |
| | 2052 | 1026 | 506 | 520 | 164 | 178 | 50 | | 64 | 14 | 114 | 114m2Sn | 159 µs | 11/2+ | | | | |
| | 2070 | 1035 | 510 | 525 | 165 | 180 | 50 | | 65 | 15 | 115 | 115Sn | stabil SF | 1/2+ | 0,34 | | | |
| | 2088 | 1044 | 514 | 530 | 166 | 182 | 50 | | 66 | 16 | 116 | 116Sn | stabil SF | 0+ | 14,53 | | | |
| | 2106 | 1053 | 518 | 535 | 167 | 184 | 50 | | 67 | 17 | 117 | 117Sn | stabil | 1/2+ | 7,68 | | | |
| | 2106 | 1053 | 518 | 535 | 167 | 184 | 50 | | 67 | 17 | 117 | 117m1Sn | 13,60 d | 11/2− | | | | |
| 0 | 2124 | 1062 | 522 | 540 | 168 | 186 | 50 | | 68 | 18 | 118 | 118Sn | stabil SF | 0+ | 24,23 | | | |
| | 2142 | 1071 | 526 | 545 | 169 | 188 | 50 | | 69 | 19 | 119 | 119Sn | stabil SF | 1/2+ | 8,59 | | | |
| | 2142 | 1071 | 526 | 545 | 169 | 188 | 50 | | 69 | 19 | 119 | 119m1Sn | 293,1 d | 11/2− | | | | |
| | 2160 | 1080 | 530 | 550 | 170 | 190 | 50 | | 70 | 20 | 120 | 120Sn | stabil SF | 0+ | 32,59 | | | |
| | 2178 | 1089 | 534 | 555 | 171 | 192 | 50 | | 71 | 21 | 121 | 121Sn | 27,06 h | 3/2+ | | | | |
| | 2178 | 1089 | 534 | 555 | 171 | 192 | 50 | | 71 | 21 | 121 | 121m1Sn | 44 a | 11/2− | | | | |
| | 2196 | 1098 | 538 | 560 | 172 | 194 | 50 | | 72 | 22 | 122 | 122Sn | stabil 2β | 0+ | 4,63 | | | |
| | 2214 | 1107 | 542 | 565 | 173 | 196 | 50 | | 73 | 23 | 123 | 123Sn | 129,2 d | 11/2− | | | | |
| | 2214 | 1107 | 542 | 565 | 173 | 196 | 50 | | 73 | 23 | 123 | 123m1Sn | 40,06 min | 3/2+ | | | | |
| | 2232 | 1116 | 546 | 570 | 174 | 198 | 50 | | 74 | 24 | 124 | 124Sn | stabil 2β | 0+ | 5,79 | | | |
| | 2232 | 1116 | 546 | 570 | 174 | 198 | 50 | | 74 | 24 | 124 | 124m1Sn | 45 µs | 10+ | | | | |
| | 2250 | 1125 | 550 | 575 | 175 | 200 | 50 | | 75 | 25 | 125 | 125Sn | 9,64 d | 11/2− | | | | |
| | 2250 | 1125 | 550 | 575 | 175 | 200 | 50 | | 75 | 25 | 125 | 125m1Sn | 9,52 min | 3/2+ | | | | |
| | 2268 | 1134 | 554 | 580 | 176 | 202 | 50 | | 76 | 26 | 126 | 126Sn | 1·10e5 a | 0+ | | | | |
| | 2286 | 1143 | 558 | 585 | 177 | 204 | 50 | | 77 | 27 | 127 | 127Sn | 2,10 h | (11/2−) | | | | |
| | 2286 | 1143 | 558 | 585 | 177 | 204 | 50 | | 77 | 27 | 127 | 127m1Sn | 4,13 min | (3/2+) | | | | |
| | 2304 | 1152 | 562 | 590 | 178 | 206 | 50 | | 78 | 28 | 128 | 128Sn | 59,07 min | 0+ | | | | |
| | 2304 | 1152 | 562 | 590 | 178 | 206 | 50 | | 78 | 28 | 128 | 128m1Sn | 6,5 s | (7−) | | | | |
| | 2322 | 1161 | 566 | 595 | 179 | 208 | 50 | | 79 | 29 | 129 | 129Sn | 2,23 min | (3/2+) | | | | |
| | 2322 | 1161 | 566 | 595 | 179 | 208 | 50 | | 79 | 29 | 129 | 129m1Sn | 6,9 min | (11/2−) | | | | |
| | 2340 | 1170 | 570 | 600 | 180 | 210 | 50 | | 80 | 30 | 130 | 130Sn | 3,72 min | 0+ | | | | |
| | 2340 | 1170 | 570 | 600 | 180 | 210 | 50 | | 80 | 30 | 130 | 130m1Sn | 1,7 min | (7−) | | | | |
| | 2358 | 1179 | 574 | 605 | 181 | 212 | 50 | | 81 | 31 | 131 | 131Sn | 56,0 s | (3/2+) | | | | |
| | 2358 | 1179 | 574 | 605 | 181 | 212 | 50 | | 81 | 31 | 131 | 131m1Sn | 58,4 s | (11/2−) | | | | |
| | 2376 | 1188 | 578 | 610 | 182 | 214 | 50 | | 82 | 32 | 132 | 132Sn | 39,7 s | 0+ | | | | |
| | 2394 | 1197 | 582 | 615 | 183 | 216 | 50 | | 83 | 33 | 133 | 133Sn | 1,45 s | (7/2−) | | | | |
| | 2412 | 1206 | 586 | 620 | 184 | 218 | 50 | | 84 | 34 | 134 | 134Sn | 1,12 s | 0+ | | | | |
| | 1872 | 936 | 467 | 469 | 155 | 157 | 51 | Antimon | 53 | 2 | 104 | 104Sb | 7,4 s | | | | | |
| | 1890 | 945 | 471 | 474 | 156 | 159 | 51 | | 54 | 3 | 105 | 105Sb | 1,12 s | | | | | |
| | 1908 | 954 | 475 | 479 | 157 | 161 | 51 | | 55 | 4 | 106 | 106Sb | | 4+ | | | | |
| | 1926 | 963 | 479 | 484 | 158 | 163 | 51 | | 56 | 5 | 107 | 107Sb | | 5/2+ | | | | |
| | 1944 | 972 | 483 | 489 | 159 | 165 | 51 | | 57 | 6 | 108 | 108Sb | 7,4 s | (4+) | | | | |
| | 1962 | 981 | 487 | 494 | 160 | 167 | 51 | | 58 | 7 | 109 | 109Sb | 17,0 s | (5/2+) | | | | |
| | 1980 | 990 | 491 | 499 | 161 | 169 | 51 | | 59 | 8 | 110 | 110Sb | 23,0 s | 3+ | | | | |
| | 1998 | 999 | 495 | 504 | 162 | 171 | 51 | | 60 | 9 | 111 | 111Sb | 75 s | (5/2+) | | | | |
| | 2016 | 1008 | 499 | 509 | 163 | 173 | 51 | | 61 | 10 | 112 | 112Sb | 51,4 s | 3+ | | | | |
| | 2034 | 1017 | 503 | 514 | 164 | 175 | 51 | | 62 | 11 | 113 | 113Sb | 6,67 min | 5/2+ | | | | |
| | 2052 | 1026 | 507 | 519 | 165 | 177 | 51 | | 63 | 12 | 114 | 114Sb | 3,49 min | 3+ | | | | |
| | 2070 | 1035 | 511 | 524 | 166 | 179 | 51 | | 64 | 13 | 115 | 115Sb | 32,1 min | 5/2+ | | | | |
| | 2070 | 1035 | 511 | 524 | 166 | 179 | 51 | | 64 | 13 | 115 | 115m1Sb | 6,2 ns | 11/2− | | | | |
| | 2070 | 1035 | 511 | 524 | 166 | 179 | 51 | | 64 | 13 | 115 | 115m2Sb | 159 ns | 19/2− | | | | |
| | 2070 | 1035 | 511 | 524 | 166 | 179 | 51 | | 64 | 13 | 115 | 115m3Sb | 4,1 ns | 25/2+ | | | | |
| | 2088 | 1044 | 515 | 529 | 167 | 181 | 51 | | 65 | 14 | 116 | 116Sb | 15,8 min | 3+ | | | | |
| | 2088 | 1044 | 515 | 529 | 167 | 181 | 51 | | 65 | 14 | 116 | 116m1Sb | 60,3 min | 8− | | | | |
| | 2106 | 1053 | 519 | 534 | 168 | 183 | 51 | | 66 | 15 | 117 | 117Sb | 2,80 h | 5/2+ | | | | |
| | 2106 | 1053 | 519 | 534 | 168 | 183 | 51 | | 66 | 15 | 117 | 117m1Sb | 355 µs | 5/2+ | | | | |
| | 2124 | 1062 | 523 | 539 | 169 | 185 | 51 | | 67 | 16 | 118 | 118Sb | 3,6 min | 1+ | | | | |
| | 2124 | 1062 | 523 | 539 | 169 | 185 | 51 | | 67 | 16 | 118 | 118m1Sb | 5,00 h | 8− | | | | |
| | 2142 | 1071 | 527 | 544 | 170 | 187 | 51 | | 68 | 17 | 119 | 119Sb | 38,19 h | 5/2+ | | | | |
| | 2142 | 1071 | 527 | 544 | 170 | 187 | 51 | | 68 | 17 | 119 | 119m1Sb | 0,85 s | (25/2+) | | | | |
| | 2160 | 1080 | 531 | 549 | 171 | 189 | 51 | | 69 | 18 | 120 | 120Sb | 15,89 min | 1+ | | | | |
| -9 | 2160 | 1080 | 531 | 549 | 171 | 189 | 51 | | 69 | 18 | 120 | 120m1Sb | 5,76 d | 8− | | | | |
| 9 | 2178 | 1089 | 535 | 554 | 172 | 191 | 51 | | 70 | 19 | 121 | 121Sb | stabil SF | 5/2+ | 57,36 | | | |
| | 2196 | 1098 | 539 | 559 | 173 | 193 | 51 | | 71 | 20 | 122 | 122Sb | 2,7238 d | 2− | | | | |
| | 2196 | 1098 | 539 | 559 | 173 | 193 | 51 | | 71 | 20 | 122 | 122m1Sb | 0,53 ms | 5+ | | | | |
| | 2196 | 1098 | 539 | 559 | 173 | 193 | 51 | | 71 | 20 | 122 | 122m2Sb | 4,191 min | (8) – | | | | |
| | 2214 | 1107 | 543 | 564 | 174 | 195 | 51 | | 72 | 21 | 123 | 123Sb | stabil SF | 7/2+ | 42,64 | | | |
| | 2232 | 1116 | 547 | 569 | 175 | 197 | 51 | | 73 | 22 | 124 | 124Sb | 60,20 d | 3− | | | | |
| | 2232 | 1116 | 547 | 569 | 175 | 197 | 51 | | 73 | 22 | 124 | 124m1Sb | 93 s | 5+ | | | | |
| | 2232 | 1116 | 547 | 569 | 175 | 197 | 51 | | 73 | 22 | 124 | 124m2Sb | 20,2 min | (8)− | | | | |
| | 2250 | 1125 | 551 | 574 | 176 | 199 | 51 | | 74 | 23 | 125 | 125Sb | 2,7582 a | 7/2+ | | | | |
| | 2268 | 1134 | 555 | 579 | 177 | 201 | 51 | | 75 | 24 | 126 | 126Sb | 12,46 d | (8)− | | | | |
| | 2268 | 1134 | 555 | 579 | 177 | 201 | 51 | | 75 | 24 | 126 | 126m1Sb | 19,15 min | (5)+ | | | | |
| | 2268 | 1134 | 555 | 579 | 177 | 201 | 51 | | 75 | 24 | 126 | 126m2Sb | 11 s | (3)− | | | | |
| | 2286 | 1143 | 559 | 584 | 178 | 203 | 51 | | 76 | 25 | 127 | 127Sb | 3,85 d | 7/2+ | | | | |
| | 2304 | 1152 | 563 | 589 | 179 | 205 | 51 | | 77 | 26 | 128 | 128Sb | 9,01 h | 8− | | | | |
| | 2304 | 1152 | 563 | 589 | 179 | 205 | 51 | | 77 | 26 | 128 | 128m1Sb | 10,4 min | 5+ | | | | |
| | 2322 | 1161 | 567 | 594 | 180 | 207 | 51 | | 78 | 27 | 129 | 129Sb | 4,40 h | 7/2+ | | | | |

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|---|---|---|---|---|---|
| 78 | Platin (Platin A) | Pt | 3486 | Stäbe (6x+8x) | 14 [4X30+2Ir26+2X28+Ag21] |
| 78 | Platin Isotop (Platin B) | - | 3514 | Stäbe (6x+8x) | 14 [4X30+2Ir27+2X28+Ag21] |
| | | | | | |
| 78 | Platin Isotop (Platin B) | - | 3514 | Stäbe (6x+8x) | 14 [4X30+2Ir27+2X28+Ag21] |
| 79 | Gold | Au | 3546 | Hantel | Au864+2 (Sm101+2Au38)+24 [Cl.25+4Ge11+Fe28] |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3330 | 1665 | 818 | 847 | 263 | 292 | 78 | | 107 | 29 | 185 | 185Pt | 70,9 min | 9/2+ | | | | |
| | 3330 | 1665 | 818 | 847 | 263 | 292 | 78 | | 107 | 29 | 185 | 185m1Pt | 33,0 min | 1/2− | | | | |
| | 3348 | 1674 | 822 | 852 | 264 | 294 | 78 | | 108 | 30 | 186 | 186Pt | 2,2 h | 0 | | | | |
| | 3366 | 1683 | 826 | 857 | 265 | 296 | 78 | | 109 | 31 | 187 | 187Pt | 2,35 h | 3/2− | | | | |
| | 3384 | 1692 | 830 | 862 | 266 | 298 | 78 | | 110 | 32 | 188 | 188Pt | 10,2 d | 0 | | | | |
| | 3402 | 1701 | 834 | 867 | 267 | 300 | 78 | | 111 | 33 | 189 | 189Pt | 10,87 h | 3/2− | | | | |
| | 3420 | 1710 | 838 | 872 | 268 | 302 | 78 | | 112 | 34 | 190 | 190Pt | 6,5·10e11 a | 0 | 0,01 | | | |
| | 3438 | 1719 | 842 | 877 | 269 | 304 | 78 | | 113 | 35 | 191 | 191Pt | 2,802 d | 3/2− | | | | |
| | 3456 | 1728 | 846 | 882 | 270 | 306 | 78 | | 114 | 36 | 192 | 192Pt | stabil α | 0 | 0,79 | | | |
| | 3474 | 1737 | 850 | 887 | 271 | 308 | 78 | | 115 | 37 | 193 | 193Pt | 50 a | 1/2− | | | | |
| | 3474 | 1737 | 850 | 887 | 271 | 308 | 78 | | 115 | 37 | 193 | 193m1Pt | 4,33 d | 13/2+ | | | | |
| 6 | 3492 | 1746 | 854 | 892 | 272 | 310 | 78 | | 116 | 38 | 194 | 194Pt | stabil α | 0 | 32,9 | | | |
| -4 | 3510 | 1755 | 858 | 897 | 273 | 312 | 78 | | 117 | 39 | 195 | 195Pt | stabil α | 1/2− | 33,8 | | | |
| | 3510 | 1755 | 858 | 897 | 273 | 312 | 78 | | 117 | 39 | 195 | 195m1Pt | 4,02 d | 13/2+ | | | | |
| 14 | 3528 | 1764 | 862 | 902 | 274 | 314 | 78 | | 118 | 40 | 196 | 196Pt | stabil α | 0 | 25,3 | | | |
| | 3546 | 1773 | 866 | 907 | 275 | 316 | 78 | | 119 | 41 | 197 | 197Pt | 19,8915 h | 1/2− | | | | |
| | 3546 | 1773 | 866 | 907 | 275 | 316 | 78 | | 119 | 41 | 197 | 197m1Pt | 95,41 min | 13/2+ | | | | |
| | 3564 | 1782 | 870 | 912 | 276 | 318 | 78 | | 120 | 42 | 198 | 198Pt | stabil α,2β | 0 | 7,2 | | | |
| | 3582 | 1791 | 874 | 917 | 277 | 320 | 78 | | 121 | 43 | 199 | 199Pt | 30,80 min | 5/2− | | | | |
| | 3582 | 1791 | 874 | 917 | 277 | 320 | 78 | | 121 | 43 | 199 | 199m1Pt | 13,6 s | (13/2)+ | | | | |
| | 3600 | 1800 | 878 | 922 | 278 | 322 | 78 | | 122 | 44 | 200 | 200Pt | 12,5 h | 0 | | | | |
| | 3618 | 1809 | 882 | 927 | 279 | 324 | 78 | | 123 | 45 | 201 | 201Pt | 2,5 min | (5/2−) | | | | |
| | 3636 | 1818 | 886 | 932 | 280 | 326 | 78 | | 124 | 46 | 202 | 202Pt | 44 h | 0 | | | | |
| | 3096 | 1548 | 767 | 781 | 251 | 265 | 79 | Gold | 93 | 14 | 172 | 172Au | 6,3 ms | | | | | |
| | 3114 | 1557 | 771 | 786 | 252 | 267 | 79 | | 94 | 15 | 173 | 173Au | 59 ms | | | | | |
| | 3132 | 1566 | 775 | 791 | 253 | 269 | 79 | | 95 | 16 | 174 | 174Au | 120 ms | | | | | |
| | 3150 | 1575 | 779 | 796 | 254 | 271 | 79 | | 96 | 17 | 175 | 175Au | 200 ms | | | | | |
| | 3168 | 1584 | 783 | 801 | 255 | 273 | 79 | | 97 | 18 | 176 | 176Au | 1,08 s | | | | | |
| | 3186 | 1593 | 787 | 806 | 256 | 275 | 79 | | 98 | 19 | 177 | 177Au | 1,18 s | | | | | |
| | 3204 | 1602 | 791 | 811 | 257 | 277 | 79 | | 99 | 20 | 178 | 178Au | 2,6 s | | | | | |
| | 3222 | 1611 | 795 | 816 | 258 | 279 | 79 | | 100 | 21 | 179 | 179Au | 7,1 s | | | | | |
| | 3240 | 1620 | 799 | 821 | 259 | 281 | 79 | | 101 | 22 | 180 | 180Au | 8,1 s | | | | | |
| | 3258 | 1629 | 803 | 826 | 260 | 283 | 79 | | 102 | 23 | 181 | 181Au | 11,4 s | 5/2− | | | | |
| | 3276 | 1638 | 807 | 831 | 261 | 285 | 79 | | 103 | 24 | 182 | 182Au | 15,6 s | | | | | |
| | 3294 | 1647 | 811 | 836 | 262 | 287 | 79 | | 104 | 25 | 183 | 183Au | 42,0 s | (5/2)− | | | | |
| | 3312 | 1656 | 815 | 841 | 263 | 289 | 79 | | 105 | 26 | 184 | 184Au | 53,0 s | 3 | | | | |
| | 3312 | 1656 | 815 | 841 | 263 | 289 | 79 | | 105 | 26 | 184 | 184m1Au | 53,0 s | 2 | | | | |
| | 3330 | 1665 | 819 | 846 | 264 | 291 | 79 | | 106 | 27 | 185 | 185Au | 4,25 min | 5/2− | | | | |
| | 3330 | 1665 | 819 | 846 | 264 | 291 | 79 | | 106 | 27 | 185 | 185m1Au | 6,8 min | | | | | |
| | 3348 | 1674 | 823 | 851 | 265 | 293 | 79 | | 107 | 28 | 186 | 186Au | 10,7 min | 3− | | | | |
| | 3366 | 1683 | 827 | 856 | 266 | 295 | 79 | | 108 | 29 | 187 | 187Au | 8,4 min | 1/2+ | | | | |
| | 3366 | 1683 | 827 | 856 | 266 | 295 | 79 | | 108 | 29 | 187 | 187m1Au | 2,3 s | 9/2− | | | | |
| | 3384 | 1692 | 831 | 861 | 267 | 297 | 79 | | 109 | 30 | 188 | 188Au | 8,84 min | 1(−) | | | | |
| | 3402 | 1701 | 835 | 866 | 268 | 299 | 79 | | 110 | 31 | 189 | 189Au | 28,7 min | 1/2+ | | | | |
| | 3402 | 1701 | 835 | 866 | 268 | 299 | 79 | | 110 | 31 | 189 | 189m1Au | 4,59 min | 11/2− | | | | |
| | 3420 | 1710 | 839 | 871 | 269 | 301 | 79 | | 111 | 32 | 190 | 190Au | 42,8 min | 1− | | | | |
| | 3420 | 1710 | 839 | 871 | 269 | 301 | 79 | | 111 | 32 | 190 | 190m1Au | 125 ms | (11−) | | | | |
| | 3438 | 1719 | 843 | 876 | 270 | 303 | 79 | | 112 | 33 | 191 | 191Au | 3,18 h | 3/2+ | | | | |
| | 3438 | 1719 | 843 | 876 | 270 | 303 | 79 | | 112 | 33 | 191 | 191m1Au | 0,92 s | (11/2−) | | | | |
| | 3456 | 1728 | 847 | 881 | 271 | 305 | 79 | | 113 | 34 | 192 | 192Au | 4,94 h | 1− | | | | |
| | 3456 | 1728 | 847 | 881 | 271 | 305 | 79 | | 113 | 34 | 192 | 192m1Au | 29 ms | (5)+ | | | | |
| | 3456 | 1728 | 847 | 881 | 271 | 305 | 79 | | 113 | 34 | 192 | 192m2Au | 160 ms | (11−) | | | | |
| | 3474 | 1737 | 851 | 886 | 272 | 307 | 79 | | 114 | 35 | 193 | 193Au | 17,65 h | 3/2+ | | | | |
| | 3474 | 1737 | 851 | 886 | 272 | 307 | 79 | | 114 | 35 | 193 | 193m1Au | 3,9 s | 11/2− | | | | |
| | 3492 | 1746 | 855 | 891 | 273 | 309 | 79 | | 115 | 36 | 194 | 194Au | 38,02 h | 1− | | | | |
| | 3492 | 1746 | 855 | 891 | 273 | 309 | 79 | | 115 | 36 | 194 | 194m1Au | 600 ms | (5+) | | | | |
| | 3492 | 1746 | 855 | 891 | 273 | 309 | 79 | | 115 | 36 | 194 | 194m2Au | 420 ms | (11−) | | | | |
| | 3510 | 1755 | 859 | 896 | 274 | 311 | 79 | | 116 | 37 | 195 | 195Au | 186,09 d | 3/2+ | | | | |
| | 3510 | 1755 | 859 | 896 | 274 | 311 | 79 | | 116 | 37 | 195 | 195m1Au | 30,5 s | 11/2− | | | | |
| | 3528 | 1764 | 863 | 901 | 275 | 313 | 79 | | 117 | 38 | 196 | 196Au | 6,183 d | 2− | | | | |
| | 3528 | 1764 | 863 | 901 | 275 | 313 | 79 | | 117 | 38 | 196 | 196m1Au | 8,1 s | 5 | | | | |
| | 3528 | 1764 | 863 | 901 | 275 | 313 | 79 | | 117 | 38 | 196 | 196m2Au | 9,6 h | 12− | | | | |
| 0 | 3546 | 1773 | 867 | 906 | 276 | 315 | 79 | | 118 | 39 | 197 | 197Au | stabil α | 3/2+ | 100 | | | |
| | 3546 | 1773 | 867 | 906 | 276 | 315 | 79 | | 118 | 39 | 197 | 197m1Au | 7,73 s | 11/2− | | | | |
| | 3564 | 1782 | 871 | 911 | 277 | 317 | 79 | | 119 | 40 | 198 | 198Au | 2,69517 d | 2− | | | | |
| | 3564 | 1782 | 871 | 911 | 277 | 317 | 79 | | 119 | 40 | 198 | 198m1Au | 2,27 d | (12−) | | | | |
| | 3582 | 1791 | 875 | 916 | 278 | 319 | 79 | | 120 | 41 | 199 | 199Au | 3,139 d | 3/2+ | | | | |
| | 3600 | 1800 | 879 | 921 | 279 | 321 | 79 | | 121 | 42 | 200 | 200Au | 48,4 min | 1(−) | | | | |
| | 3600 | 1800 | 879 | 921 | 279 | 321 | 79 | | 121 | 42 | 200 | 200m1Au | 18,7 h | 12− | | | | |
| | 3618 | 1809 | 883 | 926 | 280 | 323 | 79 | | 122 | 43 | 201 | 201Au | 26 min | 3/2+ | | | | |
| | 3636 | 1818 | 887 | 931 | 281 | 325 | 79 | | 123 | 44 | 202 | 202Au | 28,8 s | (1−) | | | | |
| | 3654 | 1827 | 891 | 936 | 282 | 327 | 79 | | 124 | 45 | 203 | 203Au | 53 s | 3/2+ | | | | |
| | 3672 | 1836 | 895 | 941 | 283 | 329 | 79 | | 125 | 46 | 204 | 204Au | 39,8 s | (2−) | | | | |
| | 3690 | 1845 | 899 | 946 | 284 | 331 | 79 | | 126 | 47 | 205 | 205Au | 31 s | (3/2+) | | | | |
| | 3150 | 1575 | 780 | 795 | 255 | 270 | 80 | Quecksilber | 95 | 15 | 175 | 175Hg | 20 ms | | | | | |
| | 3168 | 1584 | 784 | 800 | 256 | 272 | 80 | | 96 | 16 | 176 | 176Hg | 18 ms | 0 | | | | |
| | 3186 | 1593 | 788 | 805 | 257 | 274 | 80 | | 97 | 17 | 177 | 177Hg | 0,130 s | | | | | |
| | 3204 | 1602 | 792 | 810 | 258 | 276 | 80 | | 98 | 18 | 178 | 178Hg | 266 ms | 0 | | | | |
| | 3222 | 1611 | 796 | 815 | 259 | 278 | 80 | | 99 | 19 | 179 | 179Hg | 1,09 s | | | | | |
| | 3240 | 1620 | 800 | 820 | 260 | 280 | 80 | | 100 | 20 | 180 | 180Hg | 2,8 s | 0 | | | | |
| | 3258 | 1629 | 804 | 825 | 261 | 282 | 80 | | 101 | 21 | 181 | 181Hg | 3,6 s | 1/2(−) | | | | |
| | 3276 | 1638 | 808 | 830 | 262 | 284 | 80 | | 102 | 22 | 182 | 182Hg | 10,83 s | 0 | | | | |
| | 3294 | 1647 | 812 | 835 | 263 | 286 | 80 | | 103 | 23 | 183 | 183Hg | 9,4 s | 1/2− | | | | |
| | 3312 | 1656 | 816 | 840 | 264 | 288 | 80 | | 104 | 24 | 184 | 184Hg | 30,9 s | 0 | | | | |
| | 3330 | 1665 | 820 | 845 | 265 | 290 | 80 | | 105 | 25 | 185 | 185Hg | 49,1 s | 1/2− | | | | |
| | 3330 | 1665 | 820 | 845 | 265 | 290 | 80 | | 105 | 25 | 185 | 185m1Hg | 21,6 s | 13/2+ | | | | |
| | 3348 | 1674 | 824 | 850 | 266 | 292 | 80 | | 106 | 26 | 186 | 186Hg | 1,38 min | 0 | | | | |
| | 3366 | 1683 | 828 | 855 | 267 | 294 | 80 | | 107 | 27 | 187 | 187Hg | 2,4 min | 13/2+ | | | | |
| | 3366 | 1683 | 828 | 855 | 267 | 294 | 80 | | 107 | 27 | 187 | 187m1Hg | 1,9 min | 3/2− | | | | |
| | 3384 | 1692 | 832 | 860 | 268 | 296 | 80 | | 108 | 28 | 188 | 188Hg | 3,25 min | 0 | | | | |
| | 3402 | 1701 | 836 | 865 | 269 | 298 | 80 | | 109 | 29 | 189 | 189Hg | 7,6 min | 3/2− | | | | |
| | 3402 | 1701 | 836 | 865 | 269 | 298 | 80 | | 109 | 29 | 189 | 189m1Hg | 8,6 min | 13/2+ | | | | |
| | 3420 | 1710 | 840 | 870 | 270 | 300 | 80 | | 110 | 30 | 190 | 190Hg | 20,0 min | 0 | | | | |
| | 3438 | 1719 | 844 | 875 | 271 | 302 | 80 | | 111 | 31 | 191 | 191Hg | 49 min | (3/2−) | | | | |
| | 3438 | 1719 | 844 | 875 | 271 | 302 | 80 | | 111 | 31 | 191 | 191m1Hg | 50,8 min | 13/2+ | | | | |
| | 3456 | 1728 | 848 | 880 | 272 | 304 | 80 | | 112 | 32 | 192 | 192Hg | 4,85 h | 0 | | | | |
| | 3474 | 1737 | 852 | 885 | 273 | 306 | 80 | | 113 | 33 | 193 | 193Hg | 3,80 h | 3/2− | | | | |

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|---|---|---|---|---|---|
| 86 | Radon | Rn | 3990 | Stern (6x) | Ne120+6 [Xe15+Xe14+2N63+3N110+3mNe22+3mNe15+3Ar14+I.7] |
| | | | | | |
| 86 | Meta-Radon | - | 4032 | Stern (6x) | Ne120+6 [Xe15+Xe14+2N63+3N110+3mNe22+3mNe15+3Ar14+I.7+mRn.7] |
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| | | | | | | |
|---|---|---|---|---|---|---|
| 95* | Americium | Am | 4374 | Hantel ? | ? |
| 96* | Curium | Cm | 4500 | Tetraeder B ? | ? |
| 97* | Berkelium | Bk | 4446 | Würfel B ? | ? |
| 98* | Californium | Cf | 4518 | Oktaeder B ? | ? |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4446 | 2223 | 1082 | 1141 | 341 | 400 | 94 | | 153 | 59 | 247 | 247Pu | 2,27 d | | | | | |
| | 4176 | 2088 | 1023 | 1065 | 327 | 369 | 95 | Americium | 137 | 42 | 232 | 232Am | 79 s | | | | | |
| | 4194 | 2097 | 1027 | 1070 | 328 | 371 | 95 | | 138 | 43 | 233 | 233Am | | | | | | |
| | 4212 | 2106 | 1031 | 1075 | 329 | 373 | 95 | | 139 | 44 | 234 | 234Am | 2,32 min | | | | | |
| | 4230 | 2115 | 1035 | 1080 | 330 | 375 | 95 | | 140 | 45 | 235 | 235Am | 15 min | | | | | |
| | 4248 | 2124 | 1039 | 1085 | 331 | 377 | 95 | | 141 | 46 | 236 | 236Am | | | | | | |
| | 4266 | 2133 | 1043 | 1090 | 332 | 379 | 95 | | 142 | 47 | 237 | 237Am | 73,0 min | 5/2(−) | | | | |
| | 4266 | 2133 | 1043 | 1090 | 332 | 379 | 95 | | 142 | 47 | 237 | 237m1Am | 5 ns | | | | | |
| | 4284 | 2142 | 1047 | 1095 | 333 | 381 | 95 | | 143 | 48 | 238 | 238Am | 98 min | 1 | | | | |
| | 4284 | 2142 | 1047 | 1095 | 333 | 381 | 95 | | 143 | 48 | 238 | 238m1Am | 35 µs | | | | | |
| | 4302 | 2151 | 1051 | 1100 | 334 | 383 | 95 | | 144 | 49 | 239 | 239Am | 11,9 h | (5/2)− | | | | |
| | 4302 | 2151 | 1051 | 1100 | 334 | 383 | 95 | | 144 | 49 | 239 | 239m1Am | 163 ns | (7/2+) | | | | |
| | 4320 | 2160 | 1055 | 1105 | 335 | 385 | 95 | | 145 | 50 | 240 | 240Am | 50,8 h | (3−) | | | | |
| | 4320 | 2160 | 1055 | 1105 | 335 | 385 | 95 | | 145 | 50 | 240 | 240m1Am | 0,924 ms | | | | | |
| | 4338 | 2169 | 1059 | 1110 | 336 | 387 | 95 | | 146 | 51 | 241 | 241Am | 432,2 a | 5/2− | | | | |
| | 4338 | 2169 | 1059 | 1110 | 336 | 387 | 95 | | 146 | 51 | 241 | 241m1Am | 1,2 µs | | | | | |
| | 4356 | 2178 | 1063 | 1115 | 337 | 389 | 95 | | 147 | 52 | 242 | 242Am | 16,02 h | 1− | | | | |
| | 4356 | 2178 | 1063 | 1115 | 337 | 389 | 95 | | 147 | 52 | 242 | 242m1Am | 141 a | 5− | | | | |
| | 4356 | 2178 | 1063 | 1115 | 337 | 389 | 95 | | 147 | 52 | 242 | 242m2Am | 14,0 ms | | | | | |
| 0 | 4374 | 2187 | 1067 | 1120 | 338 | 391 | 95 | | 148 | 53 | 243 | 243Am | 7370 a | 5/2− | | | | |
| | 4374 | 2187 | 1067 | 1120 | 338 | 391 | 95 | | 148 | 53 | 243 | 243m1Am | 5,5 µs | | | | | |
| | 4392 | 2196 | 1071 | 1125 | 339 | 393 | 95 | | 149 | 54 | 244 | 244Am | 10,1 h | (6−) | | | | |
| | 4392 | 2196 | 1071 | 1125 | 339 | 393 | 95 | | 149 | 54 | 244 | 244m1Am | 6,5 µs | | | | | |
| | 4392 | 2196 | 1071 | 1125 | 339 | 393 | 95 | | 149 | 54 | 244 | 244m2Am | 26 min | 1 | | | | |
| | 4410 | 2205 | 1075 | 1130 | 340 | 395 | 95 | | 150 | 55 | 245 | 245Am | 2,05 h | (5/2)+ | | | | |
| | 4410 | 2205 | 1075 | 1130 | 340 | 395 | 95 | | 150 | 55 | 245 | 245m1Am | 0,64 µs | | | | | |
| | 4428 | 2214 | 1079 | 1135 | 341 | 397 | 95 | | 151 | 56 | 246 | 246Am | 39 min | (7−) | | | | |
| | 4428 | 2214 | 1079 | 1135 | 341 | 397 | 95 | | 151 | 56 | 246 | 246m1Am | 25,0 min | 2(−) | | | | |
| | 4428 | 2214 | 1079 | 1135 | 341 | 397 | 95 | | 151 | 56 | 246 | 246m2Am | 73 µs | | | | | |
| | 4446 | 2223 | 1083 | 1140 | 342 | 399 | 95 | | 152 | 57 | 247 | 247Am | 23,0 min | (5/2) | | | | |
| | 4464 | 2232 | 1087 | 1145 | 343 | 401 | 95 | | 153 | 58 | 248 | 248Am | | (5/2) | | | | |
| | 4194 | 2097 | 1028 | 1069 | 329 | 370 | 96 | Curium | 137 | 41 | 233 | 233Cm | 1 min | 3/2+ | | | | |
| | 4212 | 2106 | 1032 | 1074 | 330 | 372 | 96 | | 138 | 42 | 234 | 234Cm | 51 s | 0 | | | | |
| | 4230 | 2115 | 1036 | 1079 | 331 | 374 | 96 | | 139 | 43 | 235 | 235Cm | 5 min | 5/2+ | | | | |
| | 4230 | 2115 | 1036 | 1079 | 331 | 374 | 96 | | 139 | 43 | 235 | 235pCm | | | | | | |
| | 4248 | 2124 | 1040 | 1084 | 332 | 376 | 96 | | 140 | 44 | 236 | 236Cm | 10 min | 0 | | | | |
| | 4266 | 2133 | 1044 | 1089 | 333 | 378 | 96 | | 141 | 45 | 237 | 237Cm | 20 min | 5/2+ | | | | |
| | 4266 | 2133 | 1044 | 1089 | 333 | 378 | 96 | | 141 | 45 | 237 | 237pCm | | 7/2− | | | | |
| | 4284 | 2142 | 1048 | 1094 | 334 | 380 | 96 | | 142 | 46 | 238 | 238Cm | 2,4 h | 0 | | | | |
| | 4302 | 2151 | 1052 | 1099 | 335 | 382 | 96 | | 143 | 47 | 239 | 239Cm | 2,9 h | (7/2−) | | | | |
| | 4320 | 2160 | 1056 | 1104 | 336 | 384 | 96 | | 144 | 48 | 240 | 240Cm | 27 d | 0 | | | | |
| | 4320 | 2160 | 1056 | 1104 | 336 | 384 | 96 | | 144 | 48 | 240 | 240m1Cm | 10 ps | | | | | |
| | 4320 | 2160 | 1056 | 1104 | 336 | 384 | 96 | | 144 | 48 | 240 | 240m2Cm | 55 ns | | | | | |
| | 4338 | 2169 | 1060 | 1109 | 337 | 386 | 96 | | 145 | 49 | 241 | 241Cm | 32,8 d | 1/2+ | | | | |
| | 4338 | 2169 | 1060 | 1109 | 337 | 386 | 96 | | 145 | 49 | 241 | 241m1Cm | 15,3 ns | | | | | |
| | 4356 | 2178 | 1064 | 1114 | 338 | 388 | 96 | | 146 | 50 | 242 | 242Cm | 162,8 d | 0 | | | | |
| | 4356 | 2178 | 1064 | 1114 | 338 | 388 | 96 | | 146 | 50 | 242 | 242m1Cm | 40 ps s | | | | | |
| | 4356 | 2178 | 1064 | 1114 | 338 | 388 | 96 | | 146 | 50 | 242 | 242m2Cm | 0,18 µs | | | | | |
| | 4374 | 2187 | 1068 | 1119 | 339 | 390 | 96 | | 147 | 51 | 243 | 243Cm | 29,1 a | 5/2+ | | | | |
| | 4374 | 2187 | 1068 | 1119 | 339 | 390 | 96 | | 147 | 51 | 243 | 243m1Cm | 42 ns | | | | | |
| | 4392 | 2196 | 1072 | 1124 | 340 | 392 | 96 | | 148 | 52 | 244 | 244Cm | 18,10 a | 0 | | | | |
| | 4392 | 2196 | 1072 | 1124 | 340 | 392 | 96 | | 148 | 52 | 244 | 244m1Cm | 34 ms | 6 | | | | |
| | 4410 | 2205 | 1076 | 1129 | 341 | 394 | 96 | | 149 | 53 | 245 | 245Cm | 8500 a | 7/2+ | | | | |
| | 4410 | 2205 | 1076 | 1129 | 341 | 394 | 96 | | 149 | 53 | 245 | 245m1Cm | 13,2 ns | | | | | |
| | 4428 | 2214 | 1080 | 1134 | 342 | 396 | 96 | | 150 | 54 | 246 | 246Cm | 4730 a | 0 | | | | |
| | 4446 | 2223 | 1084 | 1139 | 343 | 398 | 96 | | 151 | 55 | 247 | 247Cm | 1,56·10e7 a | 9/2− | | | | |
| | 4464 | 2232 | 1088 | 1144 | 344 | 400 | 96 | | 152 | 56 | 248 | 248Cm | 3,40·10e5 a | 0 | | | | |
| | 4482 | 2241 | 1092 | 1149 | 345 | 402 | 96 | | 153 | 57 | 249 | 249Cm | 64,15 min | 1/2(+) | | | | |
| 0 | 4500 | 2250 | 1096 | 1154 | 346 | 404 | 96 | | 154 | 58 | 250 | 250Cm | 9000 a | 0 | | | | |
| | 4518 | 2259 | 1100 | 1159 | 347 | 406 | 96 | | 155 | 59 | 251 | 251Cm | 16,8 min | (1/2+) | | | | |
| | 4536 | 2268 | 1104 | 1164 | 348 | 408 | 96 | | 156 | 60 | 252 | 252Cm | 2 d | 0 | | | | |
| | 4284 | 2142 | 1049 | 1093 | 335 | 379 | 97 | Berkelium | 141 | 44 | 238 | 238Bk | 144 s | | | | | |
| | 4302 | 2151 | 1053 | 1098 | 336 | 381 | 97 | | 142 | 45 | 239 | 239Bk | | (7/2+) | | | | |
| | 4320 | 2160 | 1057 | 1103 | 337 | 383 | 97 | | 143 | 46 | 240 | 240Bk | 4,8 min | | | | | |
| | 4338 | 2169 | 1061 | 1108 | 338 | 385 | 97 | | 144 | 47 | 241 | 241Bk | | (7/2+) | | | | |
| | 4356 | 2178 | 1065 | 1113 | 339 | 387 | 97 | | 145 | 48 | 242 | 242Bk | 7,0 min | | | | | |
| | 4356 | 2178 | 1065 | 1113 | 339 | 387 | 97 | | 145 | 48 | 242 | 242m1Bk | 9,5 ns | | | | | |
| | 4356 | 2178 | 1065 | 1113 | 339 | 387 | 97 | | 145 | 48 | 242 | 242m2Bk | 0,60 µs | | | | | |
| | 4374 | 2187 | 1069 | 1118 | 340 | 389 | 97 | | 146 | 49 | 243 | 243Bk | 4,5 h | (3/2−) | | | | |
| | 4374 | 2187 | 1069 | 1118 | 340 | 389 | 97 | | 146 | 49 | 243 | 243m1Bk | 5 ns | | | | | |
| | 4392 | 2196 | 1073 | 1123 | 341 | 391 | 97 | | 147 | 50 | 244 | 244Bk | 4,35 h | (1−) | | | | |
| | 4392 | 2196 | 1073 | 1123 | 341 | 391 | 97 | | 147 | 50 | 244 | 244m1Bk | 820 ns | | | | | |
| | 4410 | 2205 | 1077 | 1128 | 342 | 393 | 97 | | 148 | 51 | 245 | 245Bk | 4,94 d | 3/2− | | | | |
| | 4410 | 2205 | 1077 | 1128 | 342 | 393 | 97 | | 148 | 51 | 245 | 245m1Bk | 2 ns | | | | | |
| | 4428 | 2214 | 1081 | 1133 | 343 | 395 | 97 | | 149 | 52 | 246 | 246Bk | 1,80 d | 2(−) | | | | |
| 0 | 4446 | 2223 | 1085 | 1138 | 344 | 397 | 97 | | 150 | 53 | 247 | 247Bk | 1380 a | (3/2−) | | | | |
| | 4464 | 2232 | 1089 | 1143 | 345 | 399 | 97 | | 151 | 54 | 248 | 248Bk | 9 a | (6+) | | | | |
| | 4464 | 2232 | 1089 | 1143 | 345 | 399 | 97 | | 151 | 54 | 248 | 248m1Bk | 23,7 h | 1(−) | | | | |
| | 4482 | 2241 | 1093 | 1148 | 346 | 401 | 97 | | 152 | 55 | 249 | 249Bk | 320 d | 7/2+ | | | | |
| | 4500 | 2250 | 1097 | 1153 | 347 | 403 | 97 | | 153 | 56 | 250 | 250Bk | 3,217 h | 2− | | | | |
| | 4518 | 2259 | 1101 | 1158 | 348 | 405 | 97 | | 154 | 57 | 251 | 251Bk | 55,6 min | (3/2−) | | | | |
| | 4266 | 2133 | 1046 | 1087 | 335 | 376 | 98 | Californium | 139 | 41 | 237 | 237Cf | 2,1 s | | | | | |
| | 4284 | 2142 | 1050 | 1092 | 336 | 378 | 98 | | 140 | 42 | 238 | 238Cf | 21 ms | 0 | | | | |
| | 4302 | 2151 | 1054 | 1097 | 337 | 380 | 98 | | 141 | 43 | 239 | 239Cf | 39 s | | | | | |
| | 4320 | 2160 | 1058 | 1102 | 338 | 382 | 98 | | 142 | 44 | 240 | 240Cf | 1,06 min | 0 | | | | |
| | 4338 | 2169 | 1062 | 1107 | 339 | 384 | 98 | | 143 | 45 | 241 | 241Cf | 3,78 min | | | | | |
| | 4356 | 2178 | 1066 | 1112 | 340 | 386 | 98 | | 144 | 46 | 242 | 242Cf | 3,49 min | 0 | | | | |
| | 4374 | 2187 | 1070 | 1117 | 341 | 388 | 98 | | 145 | 47 | 243 | 243Cf | 10,7 min | (1/2+) | | | | |
| | 4392 | 2196 | 1074 | 1122 | 342 | 390 | 98 | | 146 | 48 | 244 | 244Cf | 19,4 min | 0 | | | | |
| | 4410 | 2205 | 1078 | 1127 | 343 | 392 | 98 | | 147 | 49 | 245 | 245Cf | 45,0 min | (5/2+) | | | | |
| | 4428 | 2214 | 1082 | 1132 | 344 | 394 | 98 | | 148 | 50 | 246 | 246Cf | 35,7 h | 0 | | | | |
| | 4428 | 2214 | 1082 | 1132 | 344 | 394 | 98 | | 148 | 50 | 246 | 246m1Cf | 45 ns | | | | | |
| | 4446 | 2223 | 1086 | 1137 | 345 | 396 | 98 | | 149 | 51 | 247 | 247Cf | 3,11 h | (7/2+) | | | | |
| | 4464 | 2232 | 1090 | 1142 | 346 | 398 | 98 | | 150 | 52 | 248 | 248Cf | 333,5 d | 0 | | | | |
| | 4482 | 2241 | 1094 | 1147 | 347 | 400 | 98 | | 151 | 53 | 249 | 249Cf | 351 a | 9/2− | | | | |
| | 4500 | 2250 | 1098 | 1152 | 348 | 402 | 98 | | 152 | 54 | 250 | 250Cf | 13,08 a | 0 | | | | |
| 0 | 4518 | 2259 | 1102 | 1157 | 349 | 404 | 98 | | 153 | 55 | 251 | 251Cf | 898 a | 1/2+ | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 99* | Einsteinium | Es | 4536 | Würfel B ? | ? |
| 100* | Fermium | Fm | 4626 | Tetraeder B ? | ? |
| 101* | Mendelevium | Md | 4644 | Hantel ? | ? |
| 102* | Nobelium | No | 4662 | Stern (6x) | ? |
| 103* | Lawrencium | Lr | 4716 | Dom ? | ? |

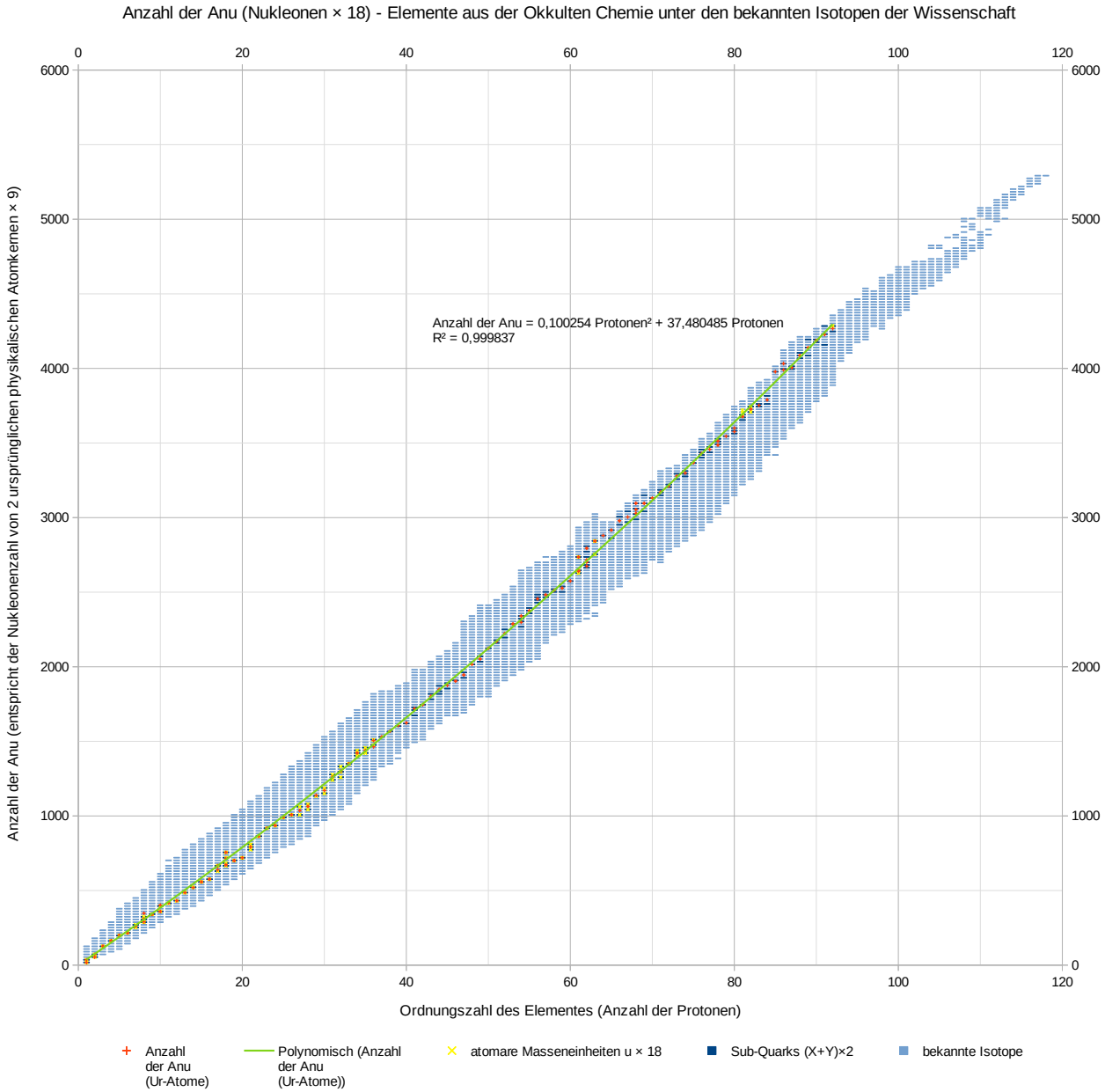
| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4536 | 2268 | 1106 | 1162 | 350 | 406 | 98 | | | 154 | 56 | 252 | 252Cf | 2,645 a | 0 | | | |
| | 4554 | 2277 | 1110 | 1167 | 351 | 408 | 98 | | | 155 | 57 | 253 | 253Cf | 17,81 d | (7/2+) | | | |
| | 4572 | 2286 | 1114 | 1172 | 352 | 410 | 98 | | | 156 | 58 | 254 | 254Cf | 60,5 d | 0 | | | |
| | 4590 | 2295 | 1118 | 1177 | 353 | 412 | 98 | | | 157 | 59 | 255 | 255Cf | 85 min | (9/2+) | | | |
| | 4608 | 2304 | 1122 | 1182 | 354 | 414 | 98 | | | 158 | 60 | 256 | 256Cf | 12,3 min | 0 | | | |
| | 4338 | 2169 | 1063 | 1106 | 340 | 383 | 99 | Einsteinium | | 142 | 43 | 241 | 241Es | 9 s | | | | |
| | 4356 | 2178 | 1067 | 1111 | 341 | 385 | 99 | | | 143 | 44 | 242 | 242Es | 40 s | | | | |
| | 4374 | 2187 | 1071 | 1116 | 342 | 387 | 99 | | | 144 | 45 | 243 | 243Es | 21 s | | | | |
| | 4392 | 2196 | 1075 | 1121 | 343 | 389 | 99 | | | 145 | 46 | 244 | 244Es | 37 s | | | | |
| | 4410 | 2205 | 1079 | 1126 | 344 | 391 | 99 | | | 146 | 47 | 245 | 245Es | 1,1 min | (3/2−) | | | |
| | 4428 | 2214 | 1083 | 1131 | 345 | 393 | 99 | | | 147 | 48 | 246 | 246Es | 7,7 min | (4−, 6+) | | | |
| | 4446 | 2223 | 1087 | 1136 | 346 | 395 | 99 | | | 148 | 49 | 247 | 247Es | 4,55 min | (7/2+) | | | |
| | 4464 | 2232 | 1091 | 1141 | 347 | 397 | 99 | | | 149 | 50 | 248 | 248Es | 27 min | (2−, 0+) | | | |
| | 4482 | 2241 | 1095 | 1146 | 348 | 399 | 99 | | | 150 | 51 | 249 | 249Es | 102,2 min | 7/2(+) | | | |
| | 4500 | 2250 | 1099 | 1151 | 349 | 401 | 99 | | | 151 | 52 | 250 | 250Es | 8,6 h | (6+) | | | |
| | 4500 | 2250 | 1099 | 1151 | 349 | 401 | 99 | | | 151 | 52 | 250 | 250m1Es | 2,22 h | 1(−) | | | |
| | 4518 | 2259 | 1103 | 1156 | 350 | 403 | 99 | | | 152 | 53 | 251 | 251Es | 33 h | (3/2−) | | | |
| 0 | 4536 | 2268 | 1107 | 1161 | 351 | 405 | 99 | | | 153 | 54 | 252 | 252Es | 471,7 d | (5−) | | | |
| | 4554 | 2277 | 1111 | 1166 | 352 | 407 | 99 | | | 154 | 55 | 253 | 253Es | 20,47 d | 7/2+ | | | |
| | 4572 | 2286 | 1115 | 1171 | 353 | 409 | 99 | | | 155 | 56 | 254 | 254Es | 275,7 d | (7+) | | | |
| | 4572 | 2286 | 1115 | 1171 | 353 | 409 | 99 | | | 155 | 56 | 254 | 254m1Es | 39,3 h | 2 | | | |
| | 4590 | 2295 | 1119 | 1176 | 354 | 411 | 99 | | | 156 | 57 | 255 | 255Es | 39,8 d | (7/2+) | | | |
| | 4608 | 2304 | 1123 | 1181 | 355 | 413 | 99 | | | 157 | 58 | 256 | 256Es | 25,4 min | (1+) | | | |
| | 4608 | 2304 | 1123 | 1181 | 355 | 413 | 99 | | | 157 | 58 | 256 | 256m1Es | 7,6 h | (8+) | | | |
| | 4626 | 2313 | 1127 | 1186 | 356 | 415 | 99 | | | 158 | 59 | 257 | 257Es | 7,8 d | | | | |
| | 4356 | 2178 | 1068 | 1110 | 342 | 384 | 100 | Fermium | | 142 | 42 | 242 | 242Fm | 0,8 ms | 0 | | | |
| | 4374 | 2187 | 1072 | 1115 | 343 | 386 | 100 | | | 143 | 43 | 243 | 243Fm | 0,18 s | | | | |
| | 4392 | 2196 | 1076 | 1120 | 344 | 388 | 100 | | | 144 | 44 | 244 | 244Fm | 3,3 ms | 0 | | | |
| | 4410 | 2205 | 1080 | 1125 | 345 | 390 | 100 | | | 145 | 45 | 245 | 245Fm | 4,2 s | | | | |
| | 4428 | 2214 | 1084 | 1130 | 346 | 392 | 100 | | | 146 | 46 | 246 | 246Fm | 1,1 s | 0 | | | |
| | 4446 | 2223 | 1088 | 1135 | 347 | 394 | 100 | | | 147 | 47 | 247 | 247Fm | 35 s | | | | |
| | 4446 | 2223 | 1088 | 1135 | 347 | 394 | 100 | | | 147 | 47 | 247 | 247m1Fm | 9,2 s | | | | |
| | 4464 | 2232 | 1092 | 1140 | 348 | 396 | 100 | | | 148 | 48 | 248 | 248Fm | 36 s | 0 | | | |
| | 4482 | 2241 | 1096 | 1145 | 349 | 398 | 100 | | | 149 | 49 | 249 | 249Fm | 2,6 min | (7/2+) | | | |
| | 4500 | 2250 | 1100 | 1150 | 350 | 400 | 100 | | | 150 | 50 | 250 | 250Fm | 30 min | 0 | | | |
| | 4500 | 2250 | 1100 | 1150 | 350 | 400 | 100 | | | 150 | 50 | 250 | 250m1Fm | 1,8 s | | | | |
| | 4518 | 2259 | 1104 | 1155 | 351 | 402 | 100 | | | 151 | 51 | 251 | 251Fm | 5,30 h | (9/2−) | | | |
| | 4536 | 2268 | 1108 | 1160 | 352 | 404 | 100 | | | 152 | 52 | 252 | 252Fm | 25,39 h | 0 | | | |
| | 4554 | 2277 | 1112 | 1165 | 353 | 406 | 100 | | | 153 | 53 | 253 | 253Fm | 3,00 d | 1/2+ | | | |
| | 4572 | 2286 | 1116 | 1170 | 354 | 408 | 100 | | | 154 | 54 | 254 | 254Fm | 3,240 h | 0 | | | |
| | 4590 | 2295 | 1120 | 1175 | 355 | 410 | 100 | | | 155 | 55 | 255 | 255Fm | 20,07 h | 7/2+ | | | |
| | 4608 | 2304 | 1124 | 1180 | 356 | 412 | 100 | | | 156 | 56 | 256 | 256Fm | 157,6 min | 0 | | | |
| | 4608 | 2304 | 1124 | 1180 | 356 | 412 | 100 | | | 156 | 56 | 256 | 256m1Fm | 70 ns | | | | |
| 0 | 4626 | 2313 | 1128 | 1185 | 357 | 414 | 100 | | | 157 | 57 | 257 | 257Fm | 100,5 d | (9/2+) | | | |
| | 4644 | 2322 | 1132 | 1190 | 358 | 416 | 100 | | | 158 | 58 | 258 | 258Fm | 370 µs | 0 | | | |
| | 4662 | 2331 | 1136 | 1195 | 359 | 418 | 100 | | | 159 | 59 | 259 | 259Fm | 1,5 s | | | | |
| | 4680 | 2340 | 1140 | 1200 | 360 | 420 | 100 | | | 160 | 60 | 260 | 260Fm | 4 ms | | | | |
| | 4392 | 2196 | 1077 | 1119 | 345 | 387 | 101 | Mendelevium | | 143 | 42 | 244 | 244Md | ? | | | | |
| | 4410 | 2205 | 1081 | 1124 | 346 | 389 | 101 | | | 144 | 43 | 245 | 245Md | 0,35 s | (7/2) | | | |
| | 4410 | 2205 | 1081 | 1124 | 346 | 389 | 101 | | | 144 | 43 | 245 | 245m1Md | 0,90 ms | (1/2−) | | | |
| | 4428 | 2214 | 1085 | 1129 | 347 | 391 | 101 | | | 145 | 44 | 246 | 246Md | 0,9 s | | | | |
| | 4446 | 2223 | 1089 | 1134 | 348 | 393 | 101 | | | 146 | 45 | 247 | 247Md | 1,22 s | (7/2) | | | |
| | 4446 | 2223 | 1089 | 1134 | 348 | 393 | 101 | | | 146 | 45 | 247 | 247m1Md | 0,25 s | (1/2−) | | | |
| | 4464 | 2232 | 1093 | 1139 | 349 | 395 | 101 | | | 147 | 46 | 248 | 248Md | 13 s | (7/2) | | | |
| | 4464 | 2232 | 1093 | 1139 | 349 | 395 | 101 | | | 147 | 46 | 248 | 248m1Md | 1,9 s | (7/2) | | | |
| | 4482 | 2241 | 1097 | 1144 | 350 | 397 | 101 | | | 148 | 47 | 249 | 249Md | 21,7 s | | | | |
| | 4500 | 2250 | 1101 | 1149 | 351 | 399 | 101 | | | 149 | 48 | 250 | 250Md | 25 s | | | | |
| | 4518 | 2259 | 1105 | 1154 | 352 | 401 | 101 | | | 150 | 49 | 251 | 251Md | 4,0 min | | | | |
| | 4536 | 2268 | 1109 | 1159 | 353 | 403 | 101 | | | 151 | 50 | 252 | 252Md | 2,3 min | | | | |
| | 4554 | 2277 | 1113 | 1164 | 354 | 405 | 101 | | | 152 | 51 | 253 | 253Md | 6 min | | | | |
| | 4572 | 2286 | 1117 | 1169 | 355 | 407 | 101 | | | 153 | 52 | 254 | 254Md | 10 min | | | | |
| | 4572 | 2286 | 1117 | 1169 | 355 | 407 | 101 | | | 153 | 52 | 254 | 254m1Md | 28 min | | | | |
| | 4590 | 2295 | 1121 | 1174 | 356 | 409 | 101 | | | 154 | 53 | 255 | 255Md | 27 min | (7/2−) | | | |
| | 4608 | 2304 | 1125 | 1179 | 357 | 411 | 101 | | | 155 | 54 | 256 | 256Md | 78,1 min | (0−, 1−) | | | |
| | 4626 | 2313 | 1129 | 1184 | 358 | 413 | 101 | | | 156 | 55 | 257 | 257Md | 5,52 h | (7/2−) | | | |
| 0 | 4644 | 2322 | 1133 | 1189 | 359 | 415 | 101 | | | 157 | 56 | 258 | 258Md | 51,5 d | (8−) | | | |
| | 4644 | 2322 | 1133 | 1189 | 359 | 415 | 101 | | | 157 | 56 | 258 | 258m1Md | 57,0 min | (1−) | | | |
| | 4662 | 2331 | 1137 | 1194 | 360 | 417 | 101 | | | 158 | 57 | 259 | 259Md | 96 min | (7/2−) | | | |
| | 4680 | 2340 | 1141 | 1199 | 361 | 419 | 101 | | | 159 | 58 | 260 | 260Md | 27,8 d | | | | |
| | 4500 | 2250 | 1102 | 1148 | 352 | 398 | 102 | Nobelium | | 148 | 46 | 250 | 250No | 0,25 ms | 0 | | | |
| | 4518 | 2259 | 1106 | 1153 | 353 | 400 | 102 | | | 149 | 47 | 251 | 251No | 0,8 s | | | | |
| | 4536 | 2268 | 1110 | 1158 | 354 | 402 | 102 | | | 150 | 48 | 252 | 252No | 2,30 s | 0 | | | |
| | 4554 | 2277 | 1114 | 1163 | 355 | 404 | 102 | | | 151 | 49 | 253 | 253No | 1,7 min | (9/2−) | | | |
| | 4572 | 2286 | 1118 | 1168 | 356 | 406 | 102 | | | 152 | 50 | 254 | 254No | 55 s | 0 | | | |
| | 4572 | 2286 | 1118 | 1168 | 356 | 406 | 102 | | | 152 | 50 | 254 | 254m1No | 0,28 s | | | | |
| | 4590 | 2295 | 1122 | 1173 | 357 | 408 | 102 | | | 153 | 51 | 255 | 255No | 3,1 min | (1/2+) | | | |
| | 4608 | 2304 | 1126 | 1178 | 358 | 410 | 102 | | | 154 | 52 | 256 | 256No | 2,91 s | 0 | | | |
| | 4626 | 2313 | 1130 | 1183 | 359 | 412 | 102 | | | 155 | 53 | 257 | 257No | 25 s | (7/2+) | | | |
| | 4644 | 2322 | 1134 | 1188 | 360 | 414 | 102 | | | 156 | 54 | 258 | 258No | 1,2 ms | 0 | | | |
| 0 | 4662 | 2331 | 1138 | 1193 | 361 | 416 | 102 | | | 157 | 55 | 259 | 259No | 58 min | (9/2+) | | | |
| | 4680 | 2340 | 1142 | 1198 | 362 | 418 | 102 | | | 158 | 56 | 260 | 260No | 106 ms | 0 | | | |
| | 4698 | 2349 | 1146 | 1203 | 363 | 420 | 102 | | | 159 | 57 | 261 | 261No | | | | | |
| | 4716 | 2358 | 1150 | 1208 | 364 | 422 | 102 | | | 160 | 58 | 262 | 262No | 5 ms | 0 | | | |
| | 4536 | 2268 | 1111 | 1157 | 355 | 401 | 103 | Lawrencium | | 149 | 46 | 252 | 252Lr | 0,4 s | | | | |
| | 4554 | 2277 | 1115 | 1162 | 356 | 403 | 103 | | | 150 | 47 | 253 | 253Lr | 0,6 s | | | | |
| | 4554 | 2277 | 1115 | 1162 | 356 | 403 | 103 | | | 150 | 47 | 253 | 253m1Lr | 1,5 s | | | | |
| | 4572 | 2286 | 1119 | 1167 | 357 | 405 | 103 | | | 151 | 48 | 254 | 254Lr | 13 s | | | | |
| | 4590 | 2295 | 1123 | 1172 | 358 | 407 | 103 | | | 152 | 49 | 255 | 255Lr | 22 s | | | | |
| | 4608 | 2304 | 1127 | 1177 | 359 | 409 | 103 | | | 153 | 50 | 256 | 256Lr | 28 s | | | | |
| | 4626 | 2313 | 1131 | 1182 | 360 | 411 | 103 | | | 154 | 51 | 257 | 257Lr | 0,646 s | (9/2+) | | | |
| | 4644 | 2322 | 1135 | 1187 | 361 | 413 | 103 | | | 155 | 52 | 258 | 258Lr | 3,9 s | | | | |
| | 4662 | 2331 | 1139 | 1192 | 362 | 415 | 103 | | | 156 | 53 | 259 | 259Lr | 6,3 s | | | | |
| | 4680 | 2340 | 1143 | 1197 | 363 | 417 | 103 | | | 157 | 54 | 260 | 260Lr | 180 s | | | | |
| | 4698 | 2349 | 1147 | 1202 | 364 | 419 | 103 | | | 158 | 55 | 261 | 261Lr | 39 min | | | | |
| 0 | 4716 | 2358 | 1151 | 1207 | 365 | 421 | 103 | | | 159 | 56 | 262 | 262Lr | 216 min | | | | |
| | 4554 | 2277 | 1116 | 1161 | 357 | 402 | 104 | Rutherfordium | | 149 | 45 | 253 | 253Rf | 1,8 s | | | | |
| | 4554 | 2277 | 1116 | 1161 | 357 | 402 | 104 | | | 149 | 45 | 253 | 253m1Rf | 48 µs | | | | |

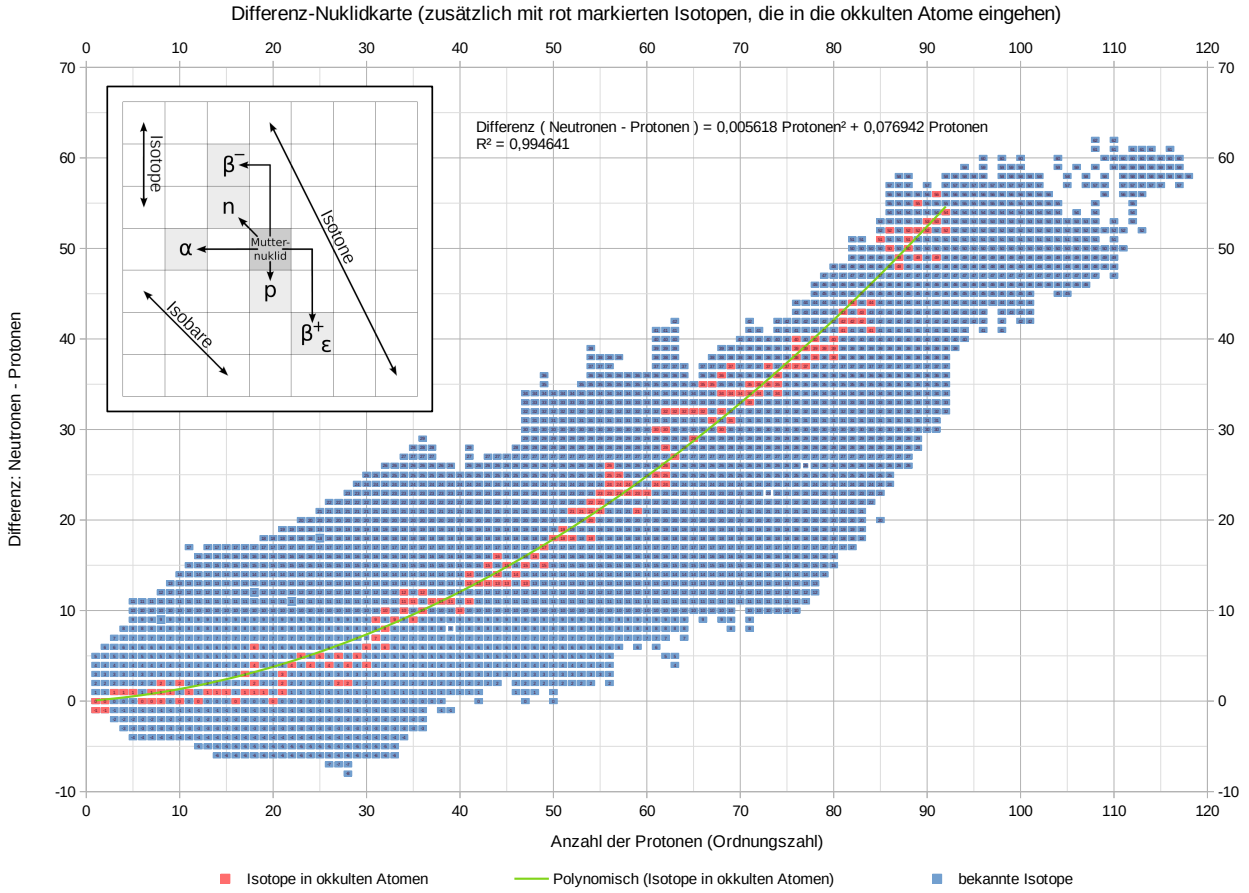
| | | | | | |
|---|---|---|---|---|---|
| 104* | Rutherfordium | Rf | 4806 | Tetraeder A ? | ? |
| 105* | Dubnium | Db | 4824 | Würfel A ? | ? |
| 106* | Seaborgium | Sg | 4878 | Oktaeder A ? | ? |
| 107* | Bohrium | Bh | 4806 | Würfel A ? | ? |
| 108* | Hassium | Hs | 4986 | Tetraeder A ? | ? |
| 109* | Meitnerium | Mt | 4932 | Dom ? | ? |
| 110* | Darmstadtium | Ds | 5076 | Stäbe (6x+8x) ? | ? |
| 111* | Roentgenium | Rg | 5076 | Hantel ? | ? |

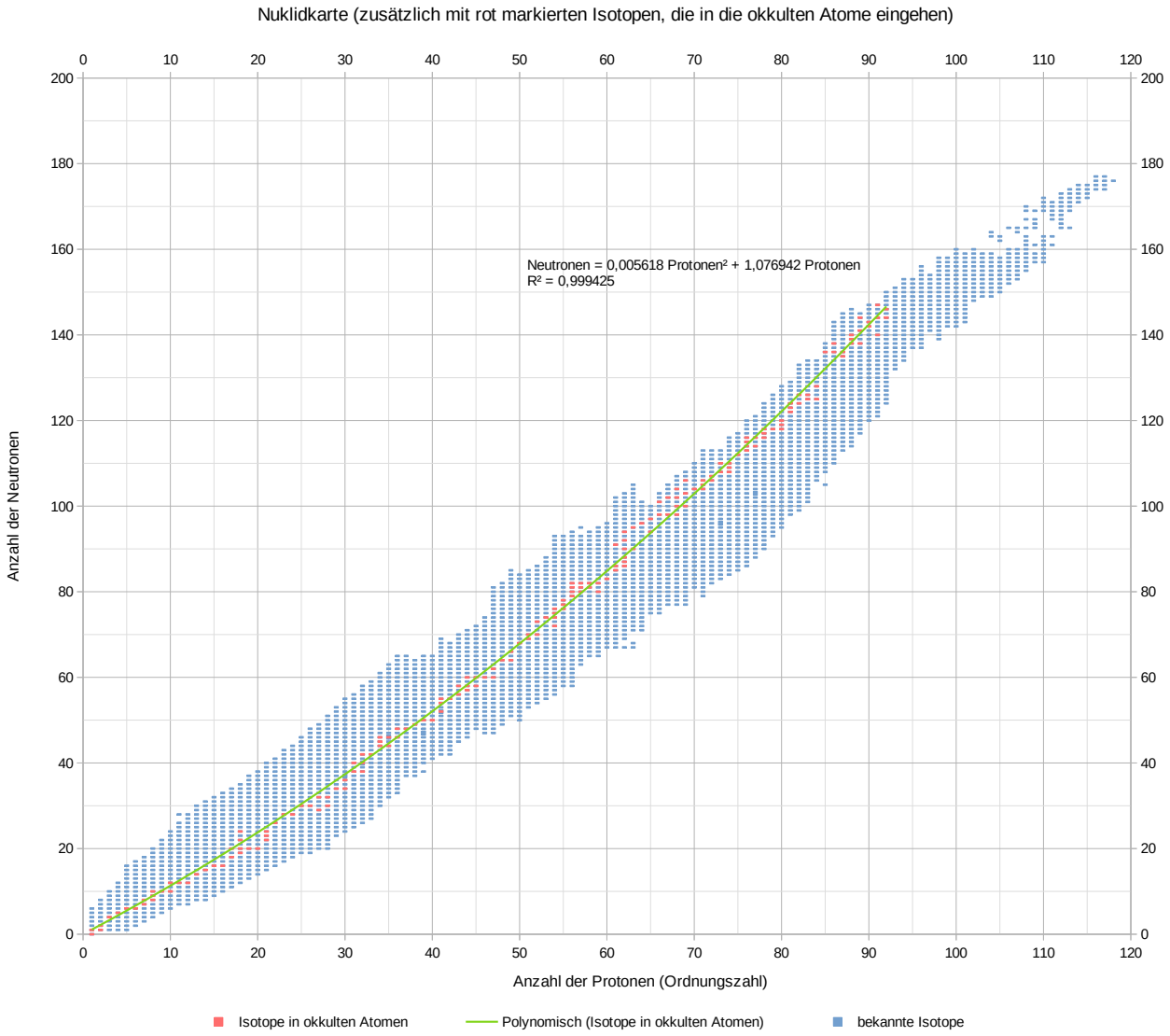
| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4572 | 2286 | 1120 | 1166 | 358 | 404 | 104 | | 150 | 46 | 254 | 254Rf | 0,5 ms | 0 | | | | |
| | 4572 | 2286 | 1120 | 1166 | 358 | 404 | 104 | | 150 | 46 | 254 | 254m1Rf | 22,3 µs | | | | | |
| | 4590 | 2295 | 1124 | 1171 | 359 | 406 | 104 | | 151 | 47 | 255 | 255Rf | 1,5 s | (9/2−) | | | | |
| | 4608 | 2304 | 1128 | 1176 | 360 | 408 | 104 | | 152 | 48 | 256 | 256Rf | 6,7 ms | 0 | | | | |
| | 4626 | 2313 | 1132 | 1181 | 361 | 410 | 104 | | 153 | 49 | 257 | 257Rf | 4,7 s | (7/2+) | | | | |
| | 4644 | 2322 | 1136 | 1186 | 362 | 412 | 104 | | 154 | 50 | 258 | 258Rf | 12 ms | 0 | | | | |
| | 4662 | 2331 | 1140 | 1191 | 363 | 414 | 104 | | 155 | 51 | 259 | 259Rf | 3,1 s | | | | | |
| | 4680 | 2340 | 1144 | 1196 | 364 | 416 | 104 | | 156 | 52 | 260 | 260Rf | 20,1 ms | 0 | | | | |
| | 4698 | 2349 | 1148 | 1201 | 365 | 418 | 104 | | 157 | 53 | 261 | 261Rf | 4,2 s | | | | | |
| | 4698 | 2349 | 1148 | 1201 | 365 | 418 | 104 | | 157 | 53 | 261 | 261m1Rf | 78 s | | | | | |
| | 4716 | 2358 | 1152 | 1206 | 366 | 420 | 104 | | 158 | 54 | 262 | 262Rf | 2,1 s | 0 | | | | |
| | 4716 | 2358 | 1152 | 1206 | 366 | 420 | 104 | | 158 | 54 | 262 | 262m1Rf | 47 ms | (2+) | | | | |
| | 4734 | 2367 | 1156 | 1211 | 367 | 422 | 104 | | 159 | 55 | 263 | 263Rf | 15 min | | | | | |
| 0 | 4806 | 2403 | 1172 | 1231 | 371 | 430 | 104 | | 163 | 59 | 267 | 267Rf | 1,3 h | | | | | |
| | 4824 | 2412 | 1176 | 1236 | 372 | 432 | 104 | | 164 | 60 | 268 | 268Rf | | 0 | | | | |
| | 4590 | 2295 | 1125 | 1170 | 360 | 405 | 105 | Dubnium | 150 | 45 | 255 | 255Db | 1,6 s | | | | | |
| | 4608 | 2304 | 1129 | 1175 | 361 | 407 | 105 | | 151 | 46 | 256 | 256Db | 2,6 s | | | | | |
| | 4626 | 2313 | 1133 | 1180 | 362 | 409 | 105 | | 152 | 47 | 257 | 257Db | 1,3 s | | | | | |
| | 4626 | 2313 | 1133 | 1180 | 362 | 409 | 105 | | 152 | 47 | 257 | 257m1Db | 0,8 s | | | | | |
| | 4644 | 2322 | 1137 | 1185 | 363 | 411 | 105 | | 153 | 48 | 258 | 258Db | 4,4 s | | | | | |
| | 4644 | 2322 | 1137 | 1185 | 363 | 411 | 105 | | 153 | 48 | 258 | 258m1Db | 20 s | | | | | |
| | 4662 | 2331 | 1141 | 1190 | 364 | 413 | 105 | | 154 | 49 | 259 | 259Db | 0,51 s | | | | | |
| | 4680 | 2340 | 1145 | 1195 | 365 | 415 | 105 | | 155 | 50 | 260 | 260Db | 1,52 s | | | | | |
| | 4698 | 2349 | 1149 | 1200 | 366 | 417 | 105 | | 156 | 51 | 261 | 261Db | 1,8 s | | | | | |
| | 4716 | 2358 | 1153 | 1205 | 367 | 419 | 105 | | 157 | 52 | 262 | 262Db | 34 s | | | | | |
| | 4734 | 2367 | 1157 | 1210 | 368 | 421 | 105 | | 158 | 53 | 263 | 263Db | 27 s | | | | | |
| | 4806 | 2403 | 1173 | 1230 | 372 | 429 | 105 | | 162 | 57 | 267 | 267Db | 1,2 h | | | | | |
| 0 | 4824 | 2412 | 1177 | 1235 | 373 | 431 | 105 | | 163 | 58 | 268 | 268Db | 16 h | | | | | |
| | 4644 | 2322 | 1138 | 1184 | 364 | 410 | 106 | Seaborgium | 152 | 46 | 258 | 258Sg | 2,9 ms | 0 | | | | |
| | 4662 | 2331 | 1142 | 1189 | 365 | 412 | 106 | | 153 | 47 | 259 | 259Sg | 0,48 s | (1/2+) | | | | |
| | 4680 | 2340 | 1146 | 1194 | 366 | 414 | 106 | | 154 | 48 | 260 | 260Sg | 3,6 ms | 0 | | | | |
| | 4698 | 2349 | 1150 | 1199 | 367 | 416 | 106 | | 155 | 49 | 261 | 261Sg | 0,23 s | | | | | |
| | 4716 | 2358 | 1154 | 1204 | 368 | 418 | 106 | | 156 | 50 | 262 | 262Sg | 6,9 ms | 0 | | | | |
| | 4734 | 2367 | 1158 | 1209 | 369 | 420 | 106 | | 157 | 51 | 263 | 263Sg | 0,8 s | | | | | |
| | 4734 | 2367 | 1158 | 1209 | 369 | 420 | 106 | | 157 | 51 | 263 | 263m1Sg | 0,31 s | (9/2+) | | | | |
| | 4752 | 2376 | 1162 | 1214 | 370 | 422 | 106 | | 158 | 52 | 264 | 264Sg | | 0 | | | | |
| | 4770 | 2385 | 1166 | 1219 | 371 | 424 | 106 | | 159 | 53 | 265 | 265Sg | 10 s | (1/2+) | | | | |
| | 4788 | 2394 | 1170 | 1224 | 372 | 426 | 106 | | 160 | 54 | 266 | 266Sg | 21 s | 0 | | | | |
| 0 | 4878 | 2439 | 1190 | 1249 | 377 | 436 | 106 | | 165 | 59 | 271 | 271Sg | 2,4 min | | | | | |
| | 4680 | 2340 | 1147 | 1193 | 367 | 413 | 107 | Bohrium | 153 | 46 | 260 | 260Bh | | | | | | |
| | 4698 | 2349 | 1151 | 1198 | 368 | 415 | 107 | | 154 | 47 | 261 | 261Bh | 11,8 ms | | | | | |
| | 4716 | 2358 | 1155 | 1203 | 369 | 417 | 107 | | 155 | 48 | 262 | 262Bh | 102 ms | | | | | |
| | 4716 | 2358 | 1155 | 1203 | 369 | 417 | 107 | | 155 | 48 | 262 | 262m1Bh | 8,0 ms | | | | | |
| | 4734 | 2367 | 1159 | 1208 | 370 | 419 | 107 | | 156 | 49 | 263 | 263Bh | | | | | | |
| | 4752 | 2376 | 1163 | 1213 | 371 | 421 | 107 | | 157 | 50 | 264 | 264Bh | 0,44 s | | | | | |
| | 4770 | 2385 | 1167 | 1218 | 372 | 423 | 107 | | 158 | 51 | 265 | 265Bh | 0,94−0,31+0,70 s | | | | | |
| | 4788 | 2394 | 1171 | 1223 | 373 | 425 | 107 | | 159 | 52 | 266 | 266Bh | 1,7 s | | | | | |
| 0 | 4806 | 2403 | 1175 | 1228 | 374 | 427 | 107 | | 160 | 53 | 267 | 267Bh | 17 s | | | | | |
| | 4878 | 2439 | 1191 | 1248 | 378 | 435 | 107 | | 164 | 57 | 271 | 271Bh | | | | | | |
| | 4896 | 2448 | 1195 | 1253 | 379 | 437 | 107 | | 165 | 58 | 272 | 272Bh | 9,8 s | | | | | |
| | 4734 | 2367 | 1160 | 1207 | 371 | 418 | 108 | Hassium | 155 | 47 | 263 | 263Hs | 1 ms | 7/2+ | | 263,12848 | 4736,3 | |
| | 4752 | 2376 | 1164 | 1212 | 372 | 420 | 108 | | 156 | 48 | 264 | 264Hs | ≈800 µs | 0 | | 264,12836 | 4754,3 | |
| | 4770 | 2385 | 1168 | 1217 | 373 | 422 | 108 | | 157 | 49 | 265 | 265Hs | 2 ms | (9/2+) | | 265,12979 | 4772,3 | |
| | 4770 | 2385 | 1168 | 1217 | 373 | 422 | 108 | | 157 | 49 | 265 | 265m1Hs | 750 µs | (1/2+) | | | | |
| | 4788 | 2394 | 1172 | 1222 | 374 | 424 | 108 | | 158 | 50 | 266 | 266Hs | 2,3 ms | 0 | | 266,13005 | 4790,3 | |
| | 4806 | 2403 | 1176 | 1227 | 375 | 426 | 108 | | 159 | 51 | 267 | 267Hs | 52 ms | (9/2+) | | 267,13167 | 4808,4 | |
| | 4806 | 2403 | 1176 | 1227 | 375 | 426 | 108 | | 159 | 51 | 267 | 267mHs | 800 ms | | | | | |
| | 4824 | 2412 | 1180 | 1232 | 376 | 428 | 108 | | 160 | 52 | 268 | 268Hs | 2 s | 0 | | 268,13216 | 4826,4 | |
| | 4842 | 2421 | 1184 | 1237 | 377 | 430 | 108 | | 161 | 53 | 269 | 269Hs | 9,7 s | (3/2+) | | 269,13372 | 4844,4 | |
| | 4860 | 2430 | 1188 | 1242 | 378 | 432 | 108 | | 162 | 54 | 270 | 270Hs | 3,6 s | 0 | | 270,13431 | 4862,4 | |
| | 4878 | 2439 | 1192 | 1247 | 379 | 434 | 108 | | 163 | 55 | 271 | 271Hs | 40 s | (3/2+) | | 271.13766 | | |
| | 4914 | 2457 | 1200 | 1257 | 381 | 438 | 108 | | 165 | 57 | 273 | 273Hs | 760 ms | | | 273,14159 | 4916,5 | |
| | 4950 | 2475 | 1208 | 1267 | 383 | 442 | 108 | | 167 | 59 | 275 | 275Hs | 0,15 s | (3/2+) | | 275,14667 | 4952,6 | |
| 0 | 4986 | 2493 | 1216 | 1277 | 385 | 446 | 108 | | 169 | 61 | 277 | 277Hs | 3 ms | (3/2+) | | 277,1519 | 4988,7 | |
| | 4986 | 2493 | 1216 | 1277 | 385 | 446 | 108 | | 169 | 61 | 277 | 277mHs | 34 s | | | | | |
| | 5004 | 2502 | 1220 | 1282 | 386 | 448 | 108 | | 170 | 62 | 278 | 278Hs | 2 s | 0 | | | | |
| | 4788 | 2394 | 1173 | 1221 | 375 | 423 | 109 | Meitnerium | 157 | 48 | 266 | 266Mt | 1,7 ms | | | | | |
| | 4788 | 2394 | 1173 | 1221 | 375 | 423 | 109 | | 157 | 48 | 266 | 266m1Mt | 3,8 ms | | | | | |
| | 4806 | 2403 | 1177 | 1226 | 376 | 425 | 109 | | 158 | 49 | 267 | 267Mt | | | | | | |
| | 4824 | 2412 | 1181 | 1231 | 377 | 427 | 109 | | 159 | 50 | 268 | 268Mt | 70 ms | (5+, 6+) | | | | |
| | 4860 | 2430 | 1189 | 1241 | 379 | 431 | 109 | | 161 | 52 | 270 | 270Mt | 5,0 ms | | | | | |
| 0 | 4932 | 2466 | 1205 | 1261 | 383 | 439 | 109 | | 165 | 56 | 274 | 274Mt | 20 s | | | | | |
| | 4950 | 2475 | 1209 | 1266 | 384 | 441 | 109 | | 166 | 57 | 275 | 275Mt | 9,7 ms | | | | | |
| | 4968 | 2484 | 1213 | 1271 | 385 | 443 | 109 | | 167 | 58 | 276 | 276Mt | 720 ms | | | | | |
| | 5004 | 2502 | 1221 | 1281 | 387 | 447 | 109 | | 169 | 60 | 278 | 278Mt | 3 s | | | | | |
| | 4806 | 2403 | 1178 | 1225 | 377 | 424 | 110 | Darmstadtium | 157 | 47 | 267 | 267Ds | 2,8 µs | (11/2−) | | | | |
| | 4824 | 2412 | 1182 | 1230 | 378 | 426 | 110 | | 158 | 48 | 268 | 268Ds | | 0 | | | | |
| | 4842 | 2421 | 1186 | 1235 | 379 | 428 | 110 | | 159 | 49 | 269 | 269Ds | 179 µs | (3/2+) | | | | |
| | 4860 | 2430 | 1190 | 1240 | 380 | 430 | 110 | | 160 | 50 | 270 | 270Ds | 6,0 ms | 0 | | | | |
| | 4860 | 2430 | 1190 | 1240 | 380 | 430 | 110 | | 160 | 50 | 270 | 270m1Ds | 100 µs | | | | | |
| | 4878 | 2439 | 1194 | 1245 | 381 | 432 | 110 | | 161 | 51 | 271 | 271Ds | 56 ms | (3/2+) | | | | |
| | 4878 | 2439 | 1194 | 1245 | 381 | 432 | 110 | | 161 | 51 | 271 | 271m1Ds | 1,1 ms | (9/2+) | | | | |
| | 4896 | 2448 | 1198 | 1250 | 382 | 434 | 110 | | 162 | 52 | 272 | 272Ds | | 0 | | | | |
| | 4914 | 2457 | 1202 | 1255 | 383 | 436 | 110 | | 163 | 53 | 273 | 273Ds | 170 µs | (3/2+) | | | | |
| | 4914 | 2457 | 1202 | 1255 | 383 | 436 | 110 | | 163 | 53 | 273 | 273m1Ds | 120 ms | (13/2−) | | | | |
| | 5022 | 2511 | 1226 | 1285 | 389 | 448 | 110 | | 169 | 59 | 279 | 279Ds | 180 ms | (7/2+) | | | | |
| | 5040 | 2520 | 1230 | 1290 | 390 | 450 | 110 | | 170 | 60 | 280 | 280Ds | 11 s | 0 | | | | |
| | 5058 | 2529 | 1234 | 1295 | 391 | 452 | 110 | | 171 | 61 | 281 | 281Ds | 9,6 s | (3/2+) | | | | |
| 0 | 5076 | 2538 | 1238 | 1300 | 392 | 454 | 110 | | 172 | 62 | 282 | 282Ds | 66 s | 0 | | | | |
| | 4896 | 2448 | 1199 | 1249 | 383 | 433 | 111 | Roentgenium | 161 | 50 | 272 | 272Rg | 3,8 ms | (5+, 6+) | | | | |
| | 4932 | 2466 | 1207 | 1259 | 385 | 437 | 111 | | 163 | 52 | 274 | 274Rg | 6,4 ms | | | | | |
| | 5004 | 2502 | 1223 | 1279 | 389 | 445 | 111 | | 167 | 56 | 278 | 278Rg | 4,2 ms | | | | | |
| | 5022 | 2511 | 1227 | 1284 | 390 | 447 | 111 | | 168 | 57 | 279 | 279Rg | 170 ms | | | | | |
| | 5040 | 2520 | 1231 | 1289 | 391 | 449 | 111 | | 169 | 58 | 280 | 280Rg | 3,6 s | | | | | |
| | 5058 | 2529 | 1235 | 1294 | 392 | 451 | 111 | | 170 | 59 | 281 | 281Rg | 1 min | | | | | |
| 0 | 5076 | 2538 | 1239 | 1299 | 393 | 453 | 111 | | 171 | 60 | 282 | 282Rg | 4 min | | | | | |
| | 4986 | 2493 | 1220 | 1273 | 389 | 442 | 112 | Copernicium | 165 | 53 | 277 | 277Cn | 0,69 ms | (3/2+) | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 112* | Copernicium | Cn | 5130 | Tetraeder B ? | ? |
| 113* | Nihonium | Nh | 5148 | Würfel B ? | ? |
| 114* | Flerovium | Fl | 5130 | Oktaeder B ? | ? |
| 115* | Moscovium | Mc | 5202 | Würfel B ? | ? |
| 116* | Livermorium | Lv | 5274 | Tetraeder B ? | ? |
| 117* | Tenness | Ts | 5292 | Hantel ? | ? |
| 118* | Oganesson | Og | 5292 | Stern (6S) ? | ? |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5004 | 2502 | 1224 | 1278 | 390 | 444 | 112 | | 166 | 54 | 278 | 278Cn | 10 ms | 0 | | | |
| | 5022 | 2511 | 1228 | 1283 | 391 | 446 | 112 | | 167 | 55 | 279 | 279Cn | 100 ms | | | | |
| | 5040 | 2520 | 1232 | 1288 | 392 | 448 | 112 | | 168 | 56 | 280 | 280Cn | 1 s | 0 | | | |
| | 5058 | 2529 | 1236 | 1293 | 393 | 450 | 112 | | 169 | 57 | 281 | 281Cn | 10 s | (3/2+) | | | |
| | 5076 | 2538 | 1240 | 1298 | 394 | 452 | 112 | | 170 | 58 | 282 | 282Cn | 0,05 ms | 0 | | | |
| | 5094 | 2547 | 1244 | 1303 | 395 | 454 | 112 | | 171 | 59 | 283 | 283Cn | 4 s | | | | |
| | 5112 | 2556 | 1248 | 1308 | 396 | 456 | 112 | | 172 | 60 | 284 | 284Cn | 101 ms | 0 | | | |
| 0 | 5130 | 2565 | 1252 | 1313 | 397 | 458 | 112 | | 173 | 61 | 285 | 285Cn | 34 s | | | | |
| | 5004 | 2502 | 1225 | 1277 | 391 | 443 | 113 | Nihonium | 165 | 52 | 278 | 278Nh | 0,24 ms | 0 | | | |
| | 5076 | 2538 | 1241 | 1297 | 395 | 451 | 113 | | 169 | 56 | 282 | 282Nh | 73 ms | | | | |
| | 5094 | 2547 | 1245 | 1302 | 396 | 453 | 113 | | 170 | 57 | 283 | 283Nh | 100 ms | | | | |
| | 5112 | 2556 | 1249 | 1307 | 397 | 455 | 113 | | 171 | 58 | 284 | 284Nh | 0,48 s[2] | | | | |
| | 5130 | 2565 | 1253 | 1312 | 398 | 457 | 113 | | 172 | 59 | 285 | 285Nh | 2,1 s[2] | | | | |
| 0 | 5148 | 2574 | 1257 | 1317 | 399 | 459 | 113 | | 173 | 60 | 286 | 286Nh | 9,5 s | 0 | | | |
| | 5166 | 2583 | 1261 | 1322 | 400 | 461 | 113 | | 174 | 61 | 287 | 287Nh | 5,5 s[3] | | | | |
| 0 | 5130 | 2565 | 1254 | 1311 | 399 | 456 | 114 | Flerovium | 171 | 57 | 285 | 285Fl | 5 s | (3/2+) | | | |
| | 5148 | 2574 | 1258 | 1316 | 400 | 458 | 114 | | 172 | 58 | 286 | 286Fl | 0,16 s | 0 | | | |
| | 5166 | 2583 | 1262 | 1321 | 401 | 460 | 114 | | 173 | 59 | 287 | 287Fl | 0,51 s | (3/2+) | | | |
| | 5184 | 2592 | 1266 | 1326 | 402 | 462 | 114 | | 174 | 60 | 288 | 288Fl | 0,8 s | 0 | | | |
| | 5202 | 2601 | 1270 | 1331 | 403 | 464 | 114 | | 175 | 61 | 289 | 289Fl | 2,7 s | (3/2+) | | | |
| | 5166 | 2583 | 1263 | 1320 | 402 | 459 | 115 | Moscovium | 172 | 57 | 287 | 287Mc | 32 ms | | | | |
| | 5184 | 2592 | 1267 | 1325 | 403 | 461 | 115 | | 173 | 58 | 288 | 288Mc | 87 ms | | | | |
| 0 | 5202 | 2601 | 1271 | 1330 | 404 | 463 | 115 | | 174 | 59 | 289 | 289Mc | 220 ms | | | | |
| | 5220 | 2610 | 1275 | 1335 | 405 | 465 | 115 | | 175 | 60 | 290 | 290Mc | 16 ms | | | | |
| | 5220 | 2610 | 1276 | 1334 | 406 | 464 | 116 | Livermorium | 174 | 58 | 290 | 290Lv | 15 ms | 0 | | | |
| | 5238 | 2619 | 1280 | 1339 | 407 | 466 | 116 | | 175 | 59 | 291 | 291Lv | 6,3 ms | | | | |
| | 5256 | 2628 | 1284 | 1344 | 408 | 468 | 116 | | 176 | 60 | 292 | 292Lv | 18 ms | 0 | | | |
| 0 | 5274 | 2637 | 1288 | 1349 | 409 | 470 | 116 | | 177 | 61 | 293 | 293Lv | 53 ms | | | | |
| | 5238 | 2619 | 1281 | 1338 | 408 | 465 | 117 | Tenness | 174 | 57 | 291 | 291Ts | 10 ms | | | | |
| | 5256 | 2628 | 1285 | 1343 | 409 | 467 | 117 | | 175 | 58 | 292 | 292Ts | 50 ms | | | | |
| | 5274 | 2637 | 1289 | 1348 | 410 | 469 | 117 | | 176 | 59 | 293 | 293Ts | 14 ms | | | | |
| 0 | 5292 | 2646 | 1293 | 1353 | 411 | 471 | 117 | | 177 | 60 | 294 | 294Ts | 78 ms | | | | |
| 0 | 5292 | 2646 | 1294 | 1352 | 412 | 470 | 118 | Oganesson | 176 | 58 | 294 | 294Og | 0,89 ms | 0 | | | |


Anzahl der Anu (Nukleonen × 18) - Elemente aus der Okkulten Chemie unter den bekannten Isotopen der Wissenschaft
Anzahl der Anu = 0,100254 Protonen² + 37,480485 Protonen
R² = 0,999837
Anzahl der Anu (entspricht der Nukleonenzahl von 2 ursprünglichen physikalischen Atomkernen × 9)
Ordnungszahl des Elementes (Anzahl der Protonen)
0
20
40
60
80
100
120
1000
2000
3000
4000
5000
6000
Anzahl der Anu (Ur-Atome)
Polynomisch (Anzahl der Anu (Ur-Atome))
atomare Masseneinheiten u × 18
Sub-Quarks (X+Y)×2
bekannte Isotope


Differenz-Nuklidkarte (zusätzlich mit rot markierten Isotopen, die in die okkulten Atome eingehen)
Differenz ( Neutronen - Protonen ) = 0,005618 Protonen² + 0,076942 Protonen
R² = 0,994641
Isotope
Isotone
Isobare
Mutter-nuklid
β⁻
n
α
p
β⁺
ε
Differenz: Neutronen - Protonen
Anzahl der Protonen (Ordnungszahl)
Isotope in okkulten Atomen
Polynomisch (Isotope in okkulten Atomen)
bekannte Isotope


Nuklidkarte (zusätzlich mit rot markierten Isotopen, die in die okkulten Atome eingehen)
Neutronen = 0,005618 Protonen² + 1,076942 Protonen
R² = 0,999425
Anzahl der Neutronen
Anzahl der Protonen (Ordnungszahl)
0
10
20
30
40
50
60
70
80
90
100
110
120
140
160
180
200
Isotope in okkulten Atomen
Polynomisch (Isotope in okkulten Atomen)
bekannte Isotope